Lecture

ENRICHING DISCOURSE ON PUBLIC DOMAINS

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INTRODUCTION

Is there one public domain, or are there many? The scholarly literature predominantly assumes there is only one, for references abound to "the public domain" in the singular.[1] Yet, even a cursory review of this literature reveals that scholars sometimes define this term differently.[2] So if there is only one public domain, but many definitions, perhaps one objective of scholarly discourse about the public domain should be to seek consensus on the one "true" definition.

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1. *See generally* Julie E. Cohen, *Copyright, Commodification and Culture: Locating the Public Domain*, *in* THE PUBLIC DOMAIN OF INFORMATION (P. Bernt Hugenholtz & Lucie Guibault eds., forthcoming 2006) (manuscript at 1, on file with the *Duke Law Journal*); David Lange, *Recognizing the Public Domain*, 44 LAW & CONTEMP. PROBS. 147 (Autumn 1981); Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965 (1990); Tyler T. Ochoa, *Origins and Meanings of the Public Domain*, 28 U. DAYTON L. REV. 215 (2002); Malla Pollack, *The Democratic Public Domain: Reconnecting the Modern First Amendment and the Original Progress Clause (a.k.a. the Copyright and Patent Clause)*, 45 JURIMETRICS J. 23 (2004).

2. *See*, e.g., James Boyle, *Foreword: The Opposite of Property?*, 66 LAW & CONTEMP. PROBS. 1, 29–30 (Winter/Spring 2003) (giving examples of varying definitions of public domain).

Professor James Boyle has provocatively suggested that there are many public domains,[3] and has urged scholars to develop a rich vocabulary for distinguishing among them. He points out that the word "property" has multiple meanings, and discourse about property proceeds without confusion because legal professionals have learned to discern from the textual context which meaning is intended.[4] Boyle urges intellectual property scholars to develop a similarly nuanced public domain vocabulary so that it will be possible to distinguish among its several meanings as well.[5]

In this Lecture, I consider the potential benefits of accepting the existence of multiple public domains and ways in which discourse about public domains might be enriched thereby. This Lecture represents a divergence from views expressed in my article, "Mapping the Digital Public Domain: Threats and Opportunities," which I presented at Duke Law School's Conference on the Public Domain in November 2001.[6] That article assumed there was one public domain—the one I mapped—that consisted of information resources free from intellectual property rights.[7] The article acknowledged that other scholars had defined the term differently, but assumed others were simply using the term loosely.[8] I accommodated other definitions by depicting them as occupying contiguous terrain to the public domain.[9] I had no doubt that mine was the right definition.

When Professor Boyle endorsed multiple public domains at the Duke conference, I assumed that he was trying to be a good host to the scholars he had invited and to discourage us from fighting

3. James Boyle, *The Second Enclosure Movement and the Construction of the Public Domain*, 66 LAW & CONTEMP. PROBS. 33, 68 (Winter/Spring 2003).

4. *See* Boyle, *supra* note 2, at 30 ("The legal scholar will likely use the term 'property' in four or five distinct and well-understood ways, depending on the context: a property interest as any legally cognizable condition of market advantage; those rights protected by a 'property rule' rather than a 'liability rule'; a variable bundle of rights of interest in things (and a bundle subject to almost unlimited state regulation and reformulation); any collection of privileges that includes market alienability, 'sole, absolute and despotic dominion' and so on.").

5. *Id.* at 30–31; *see also* Mark Rose, *Nine-Tenths of the Law: The English Copyright Debates and the Rhetoric of the Public Domain*, 66 LAW & CONTEMP. PROBS. 75, 87 (Winter/Spring 2003) (arguing for development of "an affirmative discourse that will make [the public domain] a positive and prominent part of the social and cultural landscape").

6. Pamela Samuelson, *Mapping the Digital Public Domain: Threats and Opportunities*, 66 LAW & CONTEMP. PROBS. 147 (Winter/Spring 2003).

7. *Id.* at 151.

8. *Id.* at 149 n.14.

9. *Id.*

amongst ourselves over the "true" definition of this term. An open tent approach was more likely to foster stimulating scholarly discourse, and so it did.[10] Yet, I believed then that without a clear and unambiguous definition of this term, public domain discourse would be incoherent and efforts to preserve such a domain might be ineffective because advocates of different public domains would be talking past one another.[11] As I reread the burgeoning public domain literature, I came to see that there are some advantages, as well as some risks, to recognizing the existence of more than one public domain.[12] This Lecture represents my reflections on the benefits and risks of recognizing multiple public domains.

Part I provides a synopsis of thirteen conceptions of the public domain found in the law-review literature, explaining each, generally by reviewing its explication by its principal proponent or discoverer. Part II organizes the thirteen definitions by recognizing that they cluster around three main foci: (1) the legal status of information resources; (2) freedoms to use information resources, even if protected by intellectual property (IP) rights; and (3) accessibility of information resources. Although it is common to think of information resources as either IP-protected or public domain, and as either publicly accessible or not, Part II shows that the public domain literature views these concepts not as binary opposites, but rather as points along a continuum. Part III discusses the advantages and disadvantages of recognizing multiple public domains and recommends appending adjectives to the term *public domain* to clarify discourse about which domain is intended. The constitutional public domain, for instance, is distinct from the privatizable (although not yet privatized) public domain. This Part offers reasons why some conceptions of public domains should be accepted whereas others, perhaps, should not. The principal advantage of recognizing multiple

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10. *See generally* Symposium, *The Public Domain*, 66 LAW & CONTEMP. PROBS. 1 (Winter/Spring 2003) (analyzing the state of the public domain in the digital realm, examining the constitutionalization of the public domain, and discussing future directions for scholarship and research).

11. In this concern, I am not alone. *See* Charlotte Hess & Elinor Ostrom, *Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource*, 66 LAW & CONTEMP. PROBS. 111, 114–15 (Winter/Spring 2003) (emphasizing the importance of clear definitions of terms such as *public domain* and *commons*).

12. *See* Pamela Samuelson, *Challenges of Mapping the Public Domain*, *in* THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1 (on file with the *Duke Law Journal*) (mapping different conceptions of public domain).

public domains is that it illuminates a range of important social values served by these domains and a plethora of strategies for preserving them and the values they serve.

I. SURVEYING THE MANY PUBLIC DOMAINS

Professor David Lange wrote a seminal article more than twenty years ago that asked his audience to "recogniz[e] the public domain."[13] He was a pioneer in doing so.[14] The sparseness of legal commentary on the public domain until very recently is somewhat surprising given that many judicial opinions had discussed the public domain as the status of informational works following expiration or invalidation of intellectual property rights (IPRs) or as the consequence of a claimant's failure to satisfy substantive or procedural requirements for intellectual property protection.[15] In the first decade or so after Lange's article, the public domain literature grew only modestly.[16] The main catalysts for the recent substantial

13. Lange, *supra* note 1, at 147.

14. A non-scholarly article predating Lange's that recognized the public domain was M. William Krasilovsky, *Observations on the Public Domain*, 14 BULL. COPYRIGHT SOC'Y 205 (1967) (arguing that the public domain in cultural affairs was not performing its function of broadening access to the arts).

15. *See* Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 160 (1989) ("In essence, the Florida law prohibits the entire public from engaging in a form of reverse engineering of a product in the public domain."); Compco Corp. v. Dey-Brite Lighting, Inc., 376 U.S. 234, 237–38 (1964) (noting that state laws may not protect "whatever the federal patent and copyright laws leave in the public domain"); Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 231 (1964) ("[An] unpatentable article, like an article on which the patent has expired, is in the public domain and may be made and sold by whoever chooses to do so."); Kellogg Co. v. Nat'l Biscuit Co., 305 U.S. 111, 114 (1938) ("[U]pon the expiration of the . . . patent . . . the name of the patented article passed into the public domain."). A rare statutory recognition of the public domain in the 1909 Copyright Act was a provision that "no copyright shall subsist in the original text of any work which is in the public domain." Copyright Act, 17 U.S.C. § 7 (1909) (current version at 17 U.S.C. § 103 (2000)).

16. For the most notable contribution to the public domain literature in the first decade after Professor Lange's article, see Litman, *supra* note 1. For other contributions to the literature during this period, see generally L. RAY PATTERSON & STANLEY F. BIRCH, THE NATURE OF COPYRIGHT: A LAW OF USERS' RIGHTS (1991); Paul J. Heald, *Reviving the Rhetoric of the Public Interest: Choir Directors, Copy Machines, and New Arrangements of Public Domain Music*, 46 DUKE L.J. 241 (1996); Paul J. Heald, *Payment Demands for Spurious Copyrights: Four Causes of Action*, 1 J. INTELL. PROP. L. 259 (1994); L. Ray Patterson & Craig Joyce, *Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations*, 36 UCLA L. REV. 719 (1989); Edward Samuels, *The Public Domain in Copyright Law*, 41 J. COPYRIGHT SOC'Y U.S.A. 137 (1993); Pamela Samuelson, *Information As Property: Do* Ruckelshaus *and* Carpenter *Signal a Changing Direction in the Law?*, 38 CATH. U. L. REV.

surge in scholarly interest in the public domain were Duke's Conference on the Public Domain[17] and the Supreme Court's decision to hear Eric Eldred's constitutional challenge[18] to the Sonny Bono Copyright Term Extension Act (CTEA).[19] International interest in public domain issues has also grown,[20] although for somewhat different reasons.[21]

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365 (1989); and Diane L. Zimmerman, *Information as Speech, Information as Goods: Some Thoughts on Marketplaces and the First Amendment*, 33 WM. & MARY L. REV. 665 (1992).

17. Symposium, *supra* note 10.

18. Eldred v. Ashcroft, 537 U.S. 186 (2003). Web-based publisher Eric Eldred challenged the retroactive grant of twenty additional years of exclusive rights for copyrights in existing works, arguing that the Constitution forbids a grant of exclusive rights without a quid pro quo of a newly original work to justify it; Eldred also argued that the lengthened copyright terms were virtually perpetual in violation of the "limited times" provision of the Constitution. *See* Brief of Petitioner at 9–11, *Eldred*, 537 U.S. 186 (No. 01-618), 2002 WL 32135676. Both before and after the Court's decision in *Eldred*, there was an outpouring of scholarship about the constitutional law of intellectual property, including discussion of the constitutional status of the public domain. *See generally* Symposium, Eldred v. Ashcroft: *Intellectual Property, Congressional Power, and the Constitution*, 37 LOYOLA L.A. L. REV. 1 (2002) (discussing issues involved in the *Eldred* litigation and potential ramifications of the decision); Edward Lee, *The Public's Domain: The Evolution of Legal Restraints on the Government's Power to Control Public Access Through Secrecy or Intellectual Property*, 55 HASTINGS L.J. 91 (2003) (noting a rise in the public's interest in the public domain because of the *Eldred* case); Lawrence Lessig, *Copyright's First Amendment*, 48 UCLA L. REV. 1057 (2000) (laying out the background of the litigation and endorsing a balanced approach to copyright protection); Tyler Ochoa, *Patent and Copyright Term Extension and the Constitution: An Historical Perspective*, 49 J. COPYRIGHT SOC'Y U.S.A. 19 (2002) (arguing that Congress may extend patent and copyright terms in limited circumstances); Pamela Samuelson, *The Constitutional Law of Intellectual Property After* Eldred v. Ashcroft, 50 J. COPYRIGHT SOC'Y U.S.A. 547 (2003) (suggesting that, despite *Eldred*, proponents of constitutional limits on copyright extension will succeed in the future); Paul M. Schwartz & William Michael Treanor, Eldred *and* Lochner: *Copyright Term Extension and Intellectual Property as Constitutional Property*, 112 YALE L.J. 2331 (2003) (arguing that the Court's deferential approach in *Eldred* was appropriate); Alfred C. Yen, Eldred, *the First Amendment, and Aggressive Copyright Claims*, 40 HOUSTON L. REV. 673 (2003) (studying the effect of *Eldred* on the treatment of aggressive copyright claims).

19. Pub. L. No. 105-298, 112 Stat. 2827 (1998).

20. *See generally* THE COMMODIFICATION OF INFORMATION, at viii (Niva Elkin-Koren & Neil Weinstock Netanel eds., 2002) (exploring the "commercialization, commodification, and propertization" of information); INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY REGIME (Keith E. Maskus & Jerome H. Reichman eds., 2005) (examining ways to preserve information public goods in the face of the increasing globalization of intellectual property rights); THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1 (providing international perspectives on ways to preserve the public domain).

21. Outside the U.S., *Eldred* had little significance because other nations do not have limiting constitutional provisions akin to that in Article I, sec. 8, cl. 8 of the U.S. Constitution.

A catalyst for concern about the public domain outside the U.S. was a 1996 proposal for an international treaty to protect the contents of databases in line with the *sui generis* right that the EU adopted that year. *See* Council Directive 96/9, art. 7, 1996 O.J. (L 77) 20 (establishing

As the public domain literature has proliferated, so have definitions of the public domain. At least thirteen definitions or conceptions of the public domain are evident in this literature.[22] Thus,

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new intellectual property right in contents of databases); *see also* Stephen M. Maurer, *Across Two Worlds: US and European Models of Database Protection* (2001) (manuscript on file with the *Duke Law Journal*) (describing differing approaches to database protection in Europe and the United States); Pamela Samuelson, *The U.S. Digital Agenda at WIPO*, 37 VA. J. INT'L L. 369, 419–27 (1997) (discussing a proposed database treaty).

A debate about the public domain that has been more active outside the U.S. than inside concerns whether to grant legal protection for traditional knowledge of indigenous peoples. *See* Brad Sherman & Leanne Wiseman, *Toward an Indigenous Public Domain?*, *in* THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1 (manuscript at 2, on file with the *Duke Law Journal*) (examining the relationship between indigenous intellectual property and the public domain); Manuela Carneiro de Cunha, The Role of UNESCO in the Defense of Traditional Knowledge, http://www.folklife.si.edu/resources/Unesco/dacunha.htm (last visited Jan. 14, 2006); World Intellectual Property Organization [WIPO] Intergovernmental Comm. on Intell. Prop. & Genetic Resources, Trad. Knowledge & Folklore, *Composite Study on the Protection of Traditional Knowledge*, WIPO/GRTKF/IC/5/8 (Apr. 28, 2003), http://www.wipo.int/documents/en/meetings/2003/igc/pdf/grtkf_ic_5_8.pdf; *see also* Anupam Chander & Madhavi Sunder, *The Romance of the Public Domain*, 92 CAL. L. REV. 1331, 1335 (2004) (criticizing public domain advocates for undervaluing the justice claims of indigenous peoples who want some control over Western exploitations of traditional knowledge, folklore, and plant genetic resources); *infra* notes 148–54 and accompanying text.

22. This Lecture does not differentiate between positive definitions of the public domain, such as Litman, *supra* note 1, at 967 (describing the public domain as the source of raw materials for new creations), and negative definitions, such as Samuels, *supra* note 16, at 137 (describing the public domain as what's left over when all IP-protected information is subtracted). These conceptions are, in my view, subsets of public domains (PD) 1 and 2 *infra*. I have also omitted conceptions of the public domain as lands owned by the government, even though this was the original American meaning of this term. *See* Ochoa, *supra* note 1, at 239 n.154. I do so to focus attention on informational public domains rather on land. For similar reasons, I do not include Professor Ann Bartow's conception of public domain in her forthcoming article on trademarks and the physical public domain. *See* Ann Bartow, Trademarks of Privilege: Naming Rights & The Physical Public Domain (forthcoming) (unpublished manuscript at 9, on file with the *Duke Law Journal*) (using public domain to refer to public structures or places that are branded with corporate trademarks, such as Houston's Minute Maid Park)

A usage of public domain that is closer to those discussed in this article is that reflected in the title of an essay written by the current register of copyrights:

> When I say copyright has entered the public domain, I mean it is now on trial in the court of public opinion—the public is making judgments about whether copyright is a good thing or a bad thing. If they end up concluding that it is a bad thing—that it is an obstacle rather than an enabler of their access to creative works, then it won't matter how right on the law copyright owners are—either the courts or Congress will begin to reflect that public sentiment, and the copyright owners could soon find that the law has been changed.

Mary Beth Peters, *Copyright Enters the Public Domain*, 51 J. COPYRIGHT SOC'Y U.S.A. 701, 709 (2004). Although this usage is distinct from the definitions discussed in this Lecture, it is a metaphorical usage that was not developed in the essay.

Two other public domains I have conceived, but do not discuss further in this article, are a quasi public domain and an involuntary public domain. In *Challenges of Mapping the Public* purely as a descriptive matter, Professor Boyle is correct in asserting that there are many public domains. Each of these definitions or conceptions is discussed below as a prelude to reflections on whether the proliferation of definitions or conceptions of the public domain is a blessing or a curse.

A. Public Domain (PD) 1: Information Artifacts Wholly Free from Intellectual Property Rights

Professor Boyle's *Second Enclosure* article mentions that some definitions of the public domain focus on information artifacts unencumbered by intellectual property rights.[23] This would include works in which IP rights have expired or are otherwise inoperative (e.g., because invalidated in litigation) and publicly disclosed works that do not qualify for IPRs for one or more reasons (e.g., because of insufficient originality for a copyright or unknown utility for a

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Domain, *supra* note 12, I discuss several categories of information whose intellectual property status is somewhat ambiguous, such as *International News Service v. Associated Press*, 248 U.S. 215, 236 (1918), which held news to be quasi-property as to a competitor, although common property as to the world, and *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262–63 (1979), which declared information to be in the public domain as to others, but not as to persons who contracted to pay for early disclosure and the right to use it. Ambiguous-status information could be considered as a quasi public domain. I have also imagined defining an involuntary public domain populated with, among other things, MP3 files of popular sound recordings traded via peer-to-peer file-sharing technologies and perhaps trade secrets published on the Internet. *See* Peter Biddle, Paul England, Marcus Peinado, & Bryan Willman, *The Darknet and the Future of Content Distribution*, PROCEEDINGS OF ACM WORKSHOP ON DIGITAL RIGHTS MANAGEMENT §§ 2.3, 2.4 (2002), http://crypto.stanford.edu/DRM2002/darknet5.doc (discussing peer-to-peer file sharing and the likely persistence of "darknet" trading of copyrighted digital content). Officially, commercial sound recordings are protected by copyright law in the US, but if they are as widely available as if they were public domain works, one could argue that they have been committed to an involuntary public domain. However, because neither the quasi public domain nor the involuntary public domain conception is presently recognized in the literature, neither is discussed further in this Lecture.

23. Boyle, *supra* note 3, at 59–60, 68. This public domain is aptly deemed "the opposite of property," as the subtitle to Professor Boyle's Symposium Foreword implies. *See* Boyle, *supra* note 2. Although Boyle does not cite to sources in which the public domain is so defined, Black's Law Dictionary is one such source. *See* BLACK'S LAW DICTIONARY 1265 (7th ed. 1999) ("The universe of inventions and creative works that are not protected by intellectual property rights and are therefore available for anyone to use without charge."); *see also* 1 J. THOMAS MCCARTHY, MCCARTHY ON TRADEMARKS AND UNFAIR COMPETITION § 1:2 (3d ed. 1996) (defining public domain as "the status of an invention, creative work, commercial symbol, or any other creation that is not protected by any form of intellectual property"). Notice that the definition from *Black's* reifies this public domain as coextensive with artifacts, whereas Professor McCarthy's, although also focused on artifacts (and not ideas, information, etc.), emphasizes an IP-free legal status as a core part of his definition of public domain.

patent).[24] This can be thought of as the public domain of the ineligibles and the expireds.

This public domain definition excludes information, ideas, principles, and laws of nature.[25] One might justify this exclusion by saying that ideas and information, as such, are immaterial, lack clear boundaries, and are incapable of possession except in the mind.[26] Ideas and information are, moreover, typically embodied in information artifacts, such as texts or databases, which will either be in copyright or in an IP-free public domain. Because ideas or information do not generally have a tangible existence separate from the artifacts in which they are embodied, it is perhaps an artifice to conceptualize them as though they did. There may also be a granularity reason to exclude ideas and information from a public domain.[27] That is, ideas and information may be too small in "grain size" to be IP-protected or public domain works.[28] In any event, a public domain may fairly be defined as consisting of IP-free information artifacts.[29] Eric Eldred, after all, wanted to put on the Internet about-to-be-public-domain information artifacts—such as short stories written in the 1930s, copyrights in which were about to expire and which would have expired but for the CTEA—rather than raw data or unembodied ideas.[30]

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24. For cases expressing this principle, see *supra* note 15.

25. Professor Boyle raises the question of whether the public domain "consist[s] only of works that are completely unprotected, say books whose copyright term has lapsed," or also includes "*aspects* of works that are unprotectable, such as ideas or facts." Boyle, *supra* note 3, at 59–60.

26. *See, e.g.*, Rose, *supra* note 5, at 80 ("How could ideas, which have no bounds or marks or anything that is capable of visible possession, give rise to a common-law right of property?"); *see also* Wendy J. Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA. L. REV. 149, 163 (1992) ("[R]ecent developments evidence insufficient attention to the need for sharp lines and boundaries . . . .").

27. *See generally, e.g.*, Justin Hughes, *Size Matters (or Should) in Copyright Law*, 74 FORDHAM L. REV. 575 (2005) (explaining why small-grain-size original works, such as sentences or titles, should not qualify for copyright protection).

28. Boyle mentions granularity as a factor in analysis of ideas as public domain contents. Boyle, *supra* note 2, at 30.

29. One can, however, object to this definition of public domain for reifying an abstraction and blurring the distinction between legal status of a work and artifacts embodying the work.

30. Complaint, Eldred v. Reno, 74 F. Supp. 2d 1 (D.D.C. 1999) (No. CA 99-0065 (JLG)), *aff'd* 239 F.3d 849 (D.C. Cir. 2001), *aff'd sub nom.* Eldred v. Ashcroft, 537 U.S. 186 (2003), *available at* http://cyber.law.harvard.edu/openlaw/eldredvashcroft/cyber/complaint_orig.html.

B. PD 2: IP-Free Information Resources

The most common definition of an informational public domain includes—along with IP-free information artifacts—ideas, information, concepts, principles, laws of nature, and the like.[31] To distinguish this public domain from that just discussed, I will speak of it as the public domain of "IP-free information resources."

Justice Brandeis's famous dissent in *International News Service v. Associated Press*[32] contains a classic rationale for denying legal protection to ideas and information: "The general rule of law is, that the noblest of human productions—knowledge, truths ascertained, conceptions, and ideas—become, after voluntary communication to others, free as the air to common use."[33] The modern Supreme Court accepts this proposition. In *Harper & Row Publishers, Inc. v. Nation*

31. Many scholars include ideas, information, and the like in their definition of public domain. *See, e.g.*, Cohen, *supra* note 1 (manuscript at 19) ("Words, facts, idea, and preexisting knowledge were public property, common property or *publici juris*, as were materials published without satisfaction of copyright formalities or patent eligibility requirements."); Ochoa, *supra* note 1, at 217–21 ("Copyright law does not protect works (or specific elements of works) which are not original, which consist of familiar or expected clichés, or which are (as a practical matter) indispensable to the expression of an idea."); Samuelson, *supra* note 6, at 151 (mapping that which is within the public domain, including, among other things, "[i]deas, [c]oncepts, [and t]heories"); Diane L. Zimmerman, *Is There a Right to Have Something to Say? One View of the Public Domain*, 73 FORDHAM L. REV. 297, 312–15 (2004) ("[C]opyright law similarly creates ownership rights only in the author's expression, leaving the ideas and facts contained in the work in the public domain."). Professor Ochoa points out that *the public domain* is a relatively recent term for IP-free information artifacts and that the terms *common property* and *public property* were more commonly used to describe the IP-free status of information artifacts in the nineteenth and early twentieth centuries. Ochoa, *supra* note 1, at 232–39. Ochoa attributes to Judge Learned Hand the conception of ideas as public domain information resources. *Id.* at 244. Hand's frequent use of the term "public domain" (or the minor variant "public demesne") in his influential decisions coincides with the rise of the term public domain for IP-free information resources and the demise of the terms common property and public property. *Id.* at 243–46.

32. 248 U.S. 215 (1918).

33. *Id.* at 250 (Brandeis, J., dissenting). Similar sentiments were expressed in the mid-eighteenth century by Lord Camden: "If there be any thing in the world common to all mankind, science and learning are in their nature *publici juris*, and they ought to be as free and general as air or water." Rose, *supra* note 5, at 80 (quoting WILLIAM CORBETT, XVII THE PARLIAMENTARY HISTORY OF ENGLAND col. 999 (London, R. Bragshaw 1813)). Thomas Jefferson expressed similar sentiments, which are widely quoted in the public domain literature. *See, e.g.*, Boyle, *supra* note 3, at 53 ("If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone . . . ." (quoting Letter from Thomas Jefferson to Isaac McPherson (Aug. 13, 1813), *in* 13 THE WRITINGS OF THOMAS JEFFERSON 326, 333–34 (Albert Ellery Bergh ed. 1907))).

Enterprises,[34] for example, the Court reconciled copyright's restrictions on free speech with the First Amendment's mandate of free expression by observing that copyright protected only authors' expression, not their ideas, the latter being freely usable by anyone without permission and without charge.[35] Similarly, in *Feist Publications, Inc. v. Rural Telephone Service Co.*,[36] the Supreme Court opined that "raw facts [in copyrighted works] may be copied at will," saying that "[t]his result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art."[37] As in *Harper & Row*, the Court in *Feist* emphasized that "copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work."[38] Given the Supreme Court's endorsement of ideas and information as part of a public domain, it is not surprising that many IP scholars define the public domain to include them.

C. PD 3: The Constitutionally Protected Public Domain

The *Eldred* case generated considerable interest in and scholarship about the constitutional status of the public domain.[39] Even before *Eldred*, there was general agreement that the Founders intended to build protections of the public domain (in the sense of IP-free information resources) into the Constitution by providing that exclusive rights can only be granted to "authors" and "inventors," and then only for "limited times."[40] Compilations of data that lack a modicum of creativity are, if one takes the Supreme Court at its word

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34. 471 U.S. 539 (1985).

35. *Id.* at 556–57.

36. 499 U.S. 340 (1991).

37. *Id.* at 350.

38. *Id.* at 349–50.

39. *See, e.g.*, Lee, *supra* note 19, at 99 (noting that *Eldred* has sparked an "intense public debate" over the public domain); Ochoa, *supra* note 1, at 255–56 (commenting on the significance of the *Eldred* decision to the current state of public domain law); Zimmerman, *supra* note 31, at 329–31 (addressing *Eldred*'s significance in the debate surrounding constitutional protection of the public domain); *see also* Yochai Benkler, *Through the Looking Glass: Alice and the Constitutional Foundations of the Public Domain*, 66 LAW & CONTEMP. PROBS. 173, 201 (Winter/Spring 2003) (declaring *Eldred*'s importance in "settl[ing] the core question of the relationship between the Constitution and the line demarcating the boundary between the public and proprietary domains").

40. Paul Heald & Suzanne Sherry, *Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress*, 2000 U. ILL. L. REV. 1119, 1120; Robert P. Merges & Glenn Harlan Reynolds, *The Proper Scope of the Copyright and Patent Power*, 37 HARV. J. ON LEGIS. 45, 52–53 (2000).

in *Feist*, not just unprotected by the Copyright Act of 1976, but unprotectable as a matter of constitutional law.[41] The makers of such compilations do not qualify as "authors" because their works lack the creative originality that is a sine qua non of constitutional authorship.[42] In *Graham v. John Deere Co.*,[43] the Supreme Court spoke of Article I, Section 8, Clause 8 of the Constitution as both "a grant of power and a limitation."[44] The Court indicated that "[i]nnovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must 'promote the Progress of. . . useful Arts.'"[45] Congress may also "not authorize the issuance of patents whose effects are to remove existent knowledge from the public domain."[46]

The "limited times" requirement of Article I, Section 8, Clause 8, means that Congress cannot grant perpetual protection in writings or inventions.[47] The *Eldred* case considered whether extending the terms of existing copyrights by another twenty years violated this "limited times" requirement. The new term of copyright after enactment of the CTEA[48] is, of course, a limited time in a literal sense. But Eldred argued, among other things, that the new term was virtually perpetual,[49] and hence, conflicted with this limiting principle of the

41. *See, e.g.*, Paul Goldstein, *Copyright*, 38 J. COPYRIGHT SOC'Y U.S.A. 109, 119 (1991) (noting that the Court invoked the Constitution thirteen times in explaining why unoriginal compilations such as white pages listings in telephone directories are ineligible for copyright protection). Whether Congress could grant makers of unoriginal compilations exclusive rights to control the extraction and reuse of the contents of databases, such as that involved in *Feist*, has been the subject of scholarly debate. *See, e.g.*, Yochai Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 BERKELEY TECH. L.J. 535, 539–49 (2000) (concluding that Congress lacks the power to protect unoriginal databases); James Weinstein, *The Constitutionality of Database Protection*, 28 U. DAYTON L. REV. 305, 349–50 (2003) (concluding that database protection would be constitutional).

42. *See Feist*, 499 U.S. at 351 ("[O]riginality is a constitutionally mandated prerequisite for copyright protection.").

43. 383 U.S. 1 (1966).

44. *Id.* at 5.

45. *Id.* at 6.

46. *Id.*

47. *See* Heald & Sherry, *supra* note 40, at 1120 (arguing that it is "self-evident" that "limited times" is a constitutional constraint on congressional power).

48. 17 U.S.C. § 302 (2000) (providing authors with protection for their lifetimes plus 70 years).

49. Brief for Petitioners at 17–19, Eldred v. Ashcroft, 537 U.S. 186 (2003) (No. 01-618), *available at* http://cyber.law.harvard.edu/openlaw/eldredvashcroft/supct/opening-brief.pdf; *see*

Constitution. Because Congress had extended copyright terms several times in the past, the Court decided that historical practice should inform the Court's conception of Congress's constitutional power.[50] Yet, the Court in *Eldred* recognized that there were constitutional limitations on Congress's power to protect writings.[51] As in *Harper & Row*, the Court suggested that Congress could not, consistent with the First Amendment, grant copyright owners exclusive rights in ideas or eliminate the fair use exception.[52]

Among the broadest conceptions of the constitutionally protected public domain is that articulated by Professor Diane Zimmerman.[53] Her "mandatory public domain" includes ideas, information, works as to which copyrights or patents have expired, and certain government proceedings, laws, regulations, and judicial opinions.[54] What makes this public domain mandatory is that "what goes into [this public domain] must stay there."[55] Zimmerman believes that the "baseline presumption" for constitutionally protected public domain contents is "that its contents can be used without permission and without charge."[56]

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also Brief of George A. Akerlof et al. as Amici Curiae in Support of Petitioners at 12, Eldred v. Ashcroft, 537 U.S. 186 (2003) (No. 01-618), *available at* http://cyber.law.harvard.edu/openlaw/eldredvashcroft/supct/amici/economists.pdf ("[T]he current copyright term already has nearly the same present value as an infinite copyright term.").

50. *Eldred*, 537 U.S. at 202–05.

51. *Id.* at 219–20.

52. *Id.* at 219 (citing Harper & Row, Publishers, Inc. v. Nation Enters., 471 U.S. 539 (1985)).

53. Zimmerman, *supra* note 31, at 373–75. Among the other scholars who have endorsed a constitutionally protected public domain are Benkler, *supra* note 41, at 536–37; Heald & Sherry, *supra* note 40, at 1157; Lee, *supra* note 19, at 102; Pollack, *supra* note 1, at 28–29. An even broader conception of the constitutionally protected public domain can be found in the work of Malla Pollack. *See, e.g.*, Malla Pollack, *The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History*, 28 RUTGERS COMPUTER & TECH. L.J. 61, 119–20 (2002).

54. Zimmerman, *supra* note 31, at 300, 312, 336–42, 371. Professor Zimmerman considers ideas, information, theories, and scientific principles to be "First Amendment public domain" materials, characterizing this conclusion as "'pre-theoretical' because it is so intertwined with the possibility of speaking for any purpose that no theory of the First Amendment could be implemented without it." *Id.* at 326. Zimmerman relies on other constitutional provisions as "requir[ing] that some information affirmatively be given to the public, and to remain available without restrictions on its subsequent use," such as publishing the Congressional Record and public reports of the president. *Id.* at 340.

55. *Id.* at 372. Ochoa speaks of the constitutionally protected public domain as "irrevocable." Ochoa, *supra* note 1, at 262–64.

56. Zimmerman, *supra* note 31, at 370.

D. PD 4: Privatizable Information Resources

Professor Zimmerman may be right that many information resources in the public domain must stay there and are constitutionally protected from privatization,[57] but it is a substantial stretch to say that the whole of the public domain is unprivatizable and constitutionally protected. Some information resources in the IP-free public domain are susceptible to being privatized, although no scholar has, until this Lecture, explored the privatizable public domain or attempted to define it. Yet, if the constitutional public domain deserves to be recognized and defined, as so many scholars seem to believe, then a privatizable public domain may also be worth recognizing.

Among the information resources that were in an IP-free public domain for many years before they became privatized are business methods.[58] In the past, business methods, like other public domain information resources, could be copied at will once revealed to the public. This changed with the Federal Circuit's decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*[59] Business methods are now patentable in the U.S., and many are now patented.[60] Similarly, the layout of circuits in semiconductor chips was in an IP-free public domain prior to enactment of the Semiconductor Chip Protection Act of 1984 (SCPA)[61] (unless patented, which they rarely were).[62] After SCPA passed, original chip designs were eligible

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57. The Supreme Court has rejected two recent attempts to use trademark or unfair competition law to protect works that were in the public domain owing to expired copyright and patent rights. *See* Dastar Corp. v. Twentieth Century Fox Film Corp., 539 U.S. 23, 38 (2003) (holding that the failure to attribute authorship of a television program whose copyright had expired when marketing a derivative work could not be enjoined because it was not a misleading designation of the product's origin); TrafFix Devices, Inc. v. Marketing Displays, Inc., 532 U.S. 23, 34–35 (2001) (holding that a functional design disclosed in an expired patent could not be protected as trade dress).

58. *See, e.g.*, Loew's Drive-In Theatres, Inc. v. Park-In Theatres, Inc., 174 F.2d 547, 552 (1st Cir. 1949) (holding that business methods are unpatentable abstract ideas); Pollack, *supra* note 53, at 69 (offering several rationales for rejecting business method patents).

59. 149 F.3d 1368 (Fed. Cir. 1998); *see id.* at 1375 (holding that business methods are patentable subject matter).

60. John R. Allison & Emerson H. Tiller, *The Business Method Patent Myth*, 18 BERKELEY TECH. L.J. 987, 990–91 (2004).

61. Pub. L. No. 98-620, Tit. III, 98 Stat. 3347 (1984) (codified at 17 U.S.C. § 901–914 (2000)).

62. *See, e.g.*, H.R. REP. NO. 98-781, at 3, *as reprinted in* 1984 U.S.C.C.A.N. 5750, 5752 (explaining why patent law was insufficient to protect chips). *See generally* Symposium, *The Semiconductor Chip Protection Act of 1984 and Its Lessons*, 70 MINN. L. REV. 263 (1985) ("The

for the *sui generis* (of its own kind) form of intellectual property protection created by this law.[63] Boat hulls were similarly public domain artifacts (unless patented) until Congress in 1998 created another *sui generis* form of intellectual property protection to protect them.[64] This legislation may have been unwise, but the newly created property right has not been challenged on the ground that they are part of a constitutionally protected public domain.[65]

The right of publicity is a common law intellectual property right that, in essence, allows celebrities to appropriate information resources, such as their names and likenesses, among other attributes of their personae, from the public domain.[66] Noncelebrities generally do not having publicity rights because they have not invested time, money and energy in the creation of a commercially valuable persona.[67] The names and likenesses of ordinary people may be in an IP-free public domain, although protected by privacy laws against some appropriations.[68] Yet upon becoming celebrities, their names and likenesses may be and often are propertized. Tiger Woods, for example, was not born famous; he became so. When he was unknown, his likeness was in a public domain; yet, when his likeness

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Semiconductor Chip Protection Act of 1984 . . . reflects the congressional goal of providing particular protection for the costly and time-consuming process of designing the circuitry of semiconductor chips.")

63. 17 U.S.C. § 902(a), 903–904 (2000).

64. 17 U.S.C. §§ 1301–1332. It is questionable whether the boat hull legislation would have passed the Kastenmeier/Remington test for *sui generis* legislation. *See* Robert W. Kastenmeier & Michael J. Remington, *The Semiconductor Chip Protection Act of 1984: A Swamp or Firm Ground?*, 70 MINN. L. REV. 417, 440–41 (1985) (arguing for a test in which "the proponent of a new interest ought to show that the interest can fit harmoniously within the existing legal framework[,] . . . [provide] a reasonably clear and satisfactory definition[,] . . . present an honest analysis of all the costs and benefits of the proposed legislation[,] . . . [and] show on the record how giving protection to that interest will enrich or enhance the public domain").

65. There was, however, some discussion in the legislative history of SCPA about whether Congress had the power to enact that legislation. *E.g.*, H.R. REP. NO. 98-781, at 10, *as reprinted in* 1984 U.S.C.C.A.N. 5750, 5759. *See generally* RICHARD H. STERN, SEMICONDUCTOR CHIP PROTECTION 41–45 (1986) (discussing the constitutionality of the Semiconductor Chip Protection Act).

66. *See generally* THOMAS J. MCCARTHY, THE RIGHTS OF PUBLICITY AND PRIVACY (2005) (defining and discussing the right of publicity).

67. *See, e.g.*, Brewer v. Hustler Magazine, Inc., 749 F.2d 527, 530 (9th Cir. 1984) (holding that the right of publicity is only available to those who have attained celebrity); Martin Luther King, Jr. Ctr. for Social Change v. Am. Heritage Prods., Inc., 296 S.E.2d 697, 703 (Ga. 1982) ("[P]rivate citizens have the right of privacy, [whereas] public figures have a similar right of publicity.").

68. *See, e.g.*, Pavesich v. New England Life Ins. Co., 50 S.E. 68, 80 (Ga. 1890) (holding that the appropriation of a likeness for advertising purposes violated the right of privacy).

became commercially valuable, Woods was able to privatize it through right-of-publicity law.[69]

Trademark law resembles right of publicity law in that persons (or firms) can acquire exclusive rights in names and symbols that were initially public domain information resources. Descriptive names, for example, may, after some years of use, come to signify the origins of goods or products, thereby acquiring secondary meaning that enables them to serve as trademarks.[70] *McDonald's* and *International Business Machines* are examples of now famous marks that were once too descriptive to be protected as trademarks.

When Jack Valenti, longtime head of the Motion Picture Association of America, characterized the public domain as "an orphan,"[71] he meant to convey that in the absence of intellectual property protection, there would be too little incentive to invest in the preservation and continued public distribution of culturally significant information artifacts, such as 1930s motion pictures.[72] Professor Julie Cohen has pointed out that this view conceives of intellectual property law as a form of cultural stewardship of valuable information resources, which prevents those 1930s movies from languishing in MGM's archives.[73] Allowing privatization of what would otherwise be public domain works through, for example, extension of copyright terms, in this conception, promotes progress by fostering continued availability of commercially valuable works.[74]

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69. *See* ETW Corp. v. Jireh Publ'g, Inc., 332 F.3d 915, 937–38 (6th Cir. 2003) (recognizing that Woods had publicity rights in his image, but concluding that a painting of him golfing was protected expression under the First Amendment).

70. RESTATEMENT (THIRD) OF UNFAIR COMPETITION §§ 9, 13–14 (1995).

71. *Copyright Term, Film Labeling, and Film Preservation Legislation: Hearing on Copyright Term Extension, H.R. 989 Before the Subcomm. on Courts and Intellectual Property of the H. Comm. on the Judiciary*, 104th Cong. 53 (1995) (statement of Jack Valenti, President and CEO, Motion Picture Association of America), *available at* http://judiciary.house.gov/legacy/447.htm.

72. *See, e.g.*, Brief for Amicus Curiae of Motion Picture Association of America, Inc. in Support of Respondent at 21, Eldred v. Ashcroft, 537 U.S. 186 (2003) (No. 01-618), *available at* http://cyber.law.harvard.edu/openlaw/eldredvashcroft/supct/opp-amici/mpaa.pdf (arguing that copyright term extension promotes progress of science and useful arts by giving incentives to invest in film preservation).

73. *See* Cohen, *supra* note 1 (manuscript at 23–29) (discussing the cultural stewardship rationale for copyright term extension).

74. *See, e.g.*, William M. Landes & Richard A. Posner, *Indefinitely Renewable Copyright*, 70 U. CHI. L. REV. 471, 473–74 (2003) ("The size of the public domain is in part a positive function of the extent of copyright protection, since, as a first approximation, the more extensive copyright protection is, the greater the incentive to create intellectual property—some

The cultural stewardship concept of public domain information resources is, as the *Eldred* litigation made clear, highly contested.

E. PD 5: Broadly Usable Information Resources

Professor Yochai Benkler is the principal expositor of an expansive view of the public domain as "the range of uses of information that any person is privileged to make absent individualized facts that make a particular use by a particular person unprivileged."[75] Benkler considers brief quotations of a copyrighted text in a critical book review, time-shift copying of television programming with a video recording device, and other "easy case" fair uses to be as clearly within the public domain as Mozart symphonies.[76] The critical distinction for Benkler is between those information resources that are freely usable and those as to which an owner can exercise exclusive rights.[77]

By this definition, a wide array of information resources available on the Internet and World Wide Web are public domain materials. Many sites, including those constructed by individuals to express their interests, those of public interest organizations such as the Electronic Frontier Foundation, and repositories of information artifacts such as the Internet Archive, make large volumes of information resources publicly accessible. In contrast with the "traditional, absolutist conception of the public domain,"[78] Professor Benkler's conception of the public domain encompasses information resources that, although IP-protected by copyright law, are privileged or implicitly licensed for common uses, such as downloading for personal use or linking. Benkler's definition is intuitively appealing because it speaks to a commonality among informational freedoms, though they may be derived from different legal concepts.

Professor Benkler's conception of the public domain has resonated with authors outside the IP field who seek to persuade

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fraction of which will become a part of the public domain when the copyright expires or . . . is not renewed.").

75. Yochai Benkler, *Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain*, 74 N.Y.U. L. REV. 354, 361–62 (1999). Professor Robert P. Merges uses the public domain in a similarly broad way in *A New Dynamism in the Public Domain*, 71 U. CHI. L. REV. 183, 184 (2004).

76. Benkler, *supra* note 75, at 361–62. Benkler excludes from this definition contested uses that might ultimately be deemed fair or otherwise privileged after protracted litigation. *Id.*

77. *Id.*

78. Boyle, *supra* note 3, at 61.

members of the public to support a new and more public-regarding politics of intellectual property.[79] The Internet, in this view, has "dramatically extended the traditional functions of the public domain" by providing a communications medium through which more people than ever before have become authors and publishers of interesting content.[80] "Paleontologists and rare book collectors, fans of Peggy Lee and anti-globalization activists, cat lovers and Marxist theorists all have their place at the new [public domain] table."[81] By taking advantage of the open infrastructure of the Internet, "remarkable creativity and useful information arise spontaneously, confounding neoclassical economists who believe that valuable works simply will not be created without strict property rights and markets."[82] This public domain is dynamic and expanding as advances in information technologies extend uses to which information can be put.[83]

F. PD 6: Contractually Constructed Information Commons

Some commentators consider open source software and information artifacts made widely available under Creative Commons (CC) and similar licenses to be in the public domain.[84] The more sophisticated proponents of this conception of the public domain recognize that open source software and CC-licensed content are not public domain in the sense of the first definition in this Lecture. Authors of open source and Creative Commons works invoke intellectual property rights as the source of authority for the license terms under which they make their information artifacts widely

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79. *See, e.g.*, DAVID BOLLIER, WHY THE PUBLIC DOMAIN MATTERS: THE ENDANGERED WELLSPRING OF CREATIVITY, COMMERCE AND DEMOCRACY 5 (2002) (explaining the importance of the public domain in "everyday activities"); DAVID BOLLIER & TIM WATTS, SAVING THE INFORMATION COMMONS: A NEW PUBLIC INTEREST AGENDA IN DIGITAL MEDIA 7 (2002) (noting the rise of information commons that are widely accessible to the public); NANCY KRANICH, THE INFORMATION COMMONS: A PUBLIC POLICY REPORT 32–35 (2004) (arguing for a broad public domain).

80. BOLLIER, *supra* note 79, at 2.

81. *Id.*

82. *Id.*

83. *Id.* at 24.

84. *See, e.g.*, *id.* at 14 (arguing that open source software is fortifying and expanding the public domain); BOLLIER & WATTS, *supra* note 79, at 49–52 (describing free and open source software and Creative-Commons-licensed materials as within the public domain); *see also* Merges, *supra* note 75, at 190–93 (discussing open source as an example of the new dynamism of the public domain).

available.[85] The right to use and modify open source or free software, for example, is typically conditioned on the licensee's agreement to make source- as well as object-code versions of the program and derivative works publicly available; developers of derivative software must also impose the same conditions on any subsequent licensee.[86] Open source licenses vary on many terms,[87] although the Open Source Initiative has sought to standardize core terms that should be included before the software is designated as *open source*.[88] Richard Stallman, author of the widely used GNU software, has promulgated the General Public License (GPL) as the standard for distributing "free" software, including the GNU/Linux operating system.[89]

Creative Commons builds on the open source concept by providing creators an easy way to make their works available with some, rather than all, rights reserved. To achieve this goal, it provides creators with several license options. Some allow noncommercial, but not commercial, uses of CC-licensed material; some allow derivative works to be made, whereas others do not.[90] CC-licensed materials in digital form carry technically encoded instantiations of the licenses so that computers can discern the usability of CC-licensed content.

Open source, CC, and similar licensed materials are best understood as contractually constructed information commons. Because they promote openness and widespread uses, these information resources are regarded by some commentators to be functionally similar enough to IP-free public domain materials to be included in the definition of this term.[91] Even those who might

85. *See, e.g.*, Michael Madison, *Reconstructing the Software License*, 35 LOY. U. CHI. L.J. 275, 282–87 (2003) (explaining the open source model of software licensing).

86. A variety of open source software licenses is available at the Open Source Initiative (OSI) website, http://www.opensource.org/licenses/apl1.0.php. OSI owns a certification mark and has established a process for determining which licenses conform to the definition of "open source." *See* The Open Source Definition, http://www.opensource.org/docs/definition.html (last visited Jan. 14, 2006) (describing the criteria software must meet to be open source).

87. *See, e.g.*, LAWRENCE ROSEN, OPEN SOURCE LICENSING: SOFTWARE FREEDOM AND INTELLECTUAL PROPERTY LAW 69–71 (2005) (describing various types of open source licenses). The General Public License (GPL) is, for example, more restrictive than many open source licenses because it does not permit certain kinds of commercialization of derivative works or intermixing GPL and proprietary software.

88. Open Source Definition, *supra* note 86.

89. See http://www.gnu.org/copyleft/gpl.html (explaining the GPL).

90. The license options provided by Creative Commons are available at Choosing a License, http://creativecommons.org/about/licenses/ (last visited Jan. 14, 2006).

91. *E.g.*, Merges, *supra* note 75, at 186.

question whether contractually constructed commons should be included in a definition of public domain would likely agree that such commons promote public domain values.

Contractually constructed information commons can be much more complex and highly regulated than open source or CC-licensed content. An example is the science commons intended to function as a public domain that Professor Jerome H. Reichman and Dr. Paul F. Uhlir envision for scientific data.[92] Reichman and Uhlir point out that scientific data, analysis, and results have traditionally been in an IP-free public domain.[93] Governmental policies have, moreover, generally promoted broad and open access to IP-free public domain scientific data in two ways: The government itself collects and disseminates vast quantities of scientific data in which it claims no exclusive rights,[94] and it also funds research at universities and other research institutions under grant agreements that encourage data sharing.[95]

The traditional functions of the public domain of science have been undermined, Professor Reichman and Dr. Uhlir believe, by "progressive privatization and commercialization of scientific data[] and . . . the attendant pressures to hoard and trade [data] like other private commodities."[96] The pressures come in part from new and stronger forms of legal and technical protections for databases that "pose the danger of disrupting the normative customs at the foundation of public science, especially the traditional cooperative and sharing ethos."[97] Although the U.S. has not enacted an

92. J.H. Reichman & Paul F. Uhlir, *A Contractually Reconstructed Research Commons for Scientific Data in a Highly Protectionist Intellectual Property Environment*, 66 LAW & CONTEMP. PROBS. 315, 317–25 (Winter/Spring 2003).

93. *Id.* at 319–20; *see also* Pamela Samuelson, *Preserving the Positive Functions of the Public Domain in Science*, 2 DATA SCI. J. 192, 196 (2003) ("Whether in Europe or in the United States, scientists need to work with legislatures considering anti-circumvention legislation to ensure that it contains appropriate exceptions for scientific research.").

94. *See* 17 U.S.C. § 105 (2000) (stating that works of the U.S. government are not eligible for copyright).

95. Reichman & Uhlir, *supra* note 92, at 318. *See generally* NATIONAL RESEARCH COUNCIL, PROCEEDINGS OF THE SYMPOSIUM ON THE ROLE OF SCIENTIFIC AND TECHNICAL DATA AND INFORMATION IN THE PUBLIC DOMAIN (2003) (discussing the impact of scientific and technical data in the public domain on education and research).

96. Reichman & Uhlir, *supra* note 92, at 319.

97. *Id.* at 320, 366–94.

intellectual property regime to protect the contents of databases,[98] the EU has.[99] Reichman and Uhlir believe that the scientific community cannot afford to assume the U.S. will not do the same in the future. In any event, expansive interpretations of copyright law, use of access controls bolstered by anticircumvention regulations, and restrictive database licensing agreements have limited access to and reuses of hitherto public domain resources, such as scientific data.[100]

In the face of the increasingly protectionist legal and business environment for databases of scientific significance, Professor Reichman and Dr. Uhlir propose that scientific research communities reconstruct the traditional research commons of the public domain by contractually binding members of relevant research communities to form a commons by licensing the scientific data they produce to repositories to preserve open access, rights to extract and reuse data, sharing of research data and results, and other public domain values.[101] Reichman and Uhlir draw upon the insights of Charlotte Hess and Professor Elinor Ostrom who observe that creating a commons may require "[d]evising property regimes that effectively allow sustainable use of a common-pool resource" which in turn "requires one set of rules that limits access to the resource system and another set of rules that limits the amount, timing, and technology used to withdraw diverse resource units from the resource system."[102] Reichman and Uhlir offer detailed suggestions about how a science commons might be created and maintained.

G. PD 7: A Status Conferring a Presumptive Right of Creative Appropriation

Scientists are not the only creative people who rely on public domain information resources. The public domain literature is replete with concerns about the ability of follow-on creators to draw upon preexisting information resources in making new works. More than two decades ago Professor David Lange worried that expansive

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98. *See, e.g.*, J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 52–58 (1997) (discussing proposed U.S. database protection legislation).

99. Council Directive 96/9, art. 1, 1996 O.J. (L 77) 20. For a discussion of the impact of this directive on the EU database industry, see, for example, Stephen M. Maurer, P. Bernt Hugenholtz, & Harlan J. Onsrud, *Europe's Database Experiment*, 294 SCIENCE Oct. 26, 2001, at 789.

100. Reichman & Uhlir, *supra* note 92, at 371–95.

101. *Id.* at Part IV.

102. Hess & Ostrom, *supra* note 11, at 121.

publicity rights would limit the ability of artists to express themselves.[103] Andy Warhol's portraits of famous people such as Elizabeth Taylor would, for example, be threatened if the law gave celebrities exclusive rights to control all depictions of their likenesses.[104] Professor Jessica Litman similarly emphasizes the "central importance [of the public domain] in promoting the enterprise of authorship."[105] She criticizes the romantic view of originality, i.e., the notion that authors conjure up new works from nothing.[106] She conceives of authorship instead as "a combination of absorption, astigmatism, and amnesia."[107] Because the public domain provides the raw material from which all creators draw, Litman believes this domain makes the rest of the IP system work.[108]

Professor Lange has recently reimagined the public domain in a more proactive way.[109] He no longer thinks of it as something that needs merely to be recognized or defined.[110] Nor is he is content with conceiving of the public domain as a preserve or sanctuary in which creation can take place.[111] To make the public domain more dynamic and robust, he now conceives it as "a status that arises from the exercise of the creative imagination . . . confer[ring] [on authors] entitlements, privileges and immunities" to appropriate from other works in the course of creating new ones.[112] This status, he says, should be "independently and affirmatively recognized in law, sometimes collective in nature and sometimes individual, but

103. *See* Lange, *supra* note 1, at 165 ("As access to the public domain is choked, or even closed off altogether, the public loses too: loses the rich heritage of its culture, the rich presence of new works derived from that culture, and the rich promise of works to come.").

104. A recent example of an expansive publicity rights claim against a creative artistic work is *Parks v. LaFace Records*, 329 F.3d 437, 442 (6th Cir. 2003) (upholding publicity rights claim by Rosa Parks against a rap group that used her name in the title of its song and made reference in the lyrics to moving to the back of the bus).

105. Litman, *supra* note 1, at 968.

106. *See id.* at 965 ("Our copyright law is based on the charming notion that authors create something from nothing . . . .").

107. *Id.* at 1011.

108. *Id.* at 968.

109. David Lange, *Reimagining the Public Domain*, 66 LAW & CONTEMP. PROBS. 463 (Winter/Spring 2003).

110. *Id.* at 475.

111. *Id.* at 474.

112. *Id.*; *cf.* Jed Rubenfeld, *The Freedom of Imagination: Copyright's Constitutionality*, 112 YALE L.J. 1, 4 (2002) ("[T]he constitutional protection of art is best understood through a principle that I will call the *freedom of imagination*. Under this freedom, no one can be penalized for imagining or communicating what he imagines.").

omnipresent, portable, and defining."[113] It should not just be an affirmative defense to charges of copyright infringement, but an affirmative right of authors to imagine and bring into being new works, even if they thereby incorporate parts of existing creations. "Creative appropriation would be presumptively privileged in every instance, without primary concern either for exploitation adversely affecting the economic value of an antecedent work or for the reputation or sensibilities of its author or proprietor . . . ."[114] In so doing, Lange proffered a new public domain for scholarly consideration.

H. PD 8: A Cultural Landscape

Professor Julie Cohen shares Professor Lange's concern about the ability of creators to draw upon existing works in the course of engaging in creative work. In recent work, she characterizes the public domain as "a policy construct intended to foster the development of artistic culture,"[115] asserting that "a theory of the public domain must make sense when measured against the ways that creative practice works."[116] The proper approach to defining "the relationship between the proprietary and the public in copyright law is not to be derived by interrogating nineteenth-century legal concepts, nor by studying markets for creative products or modeling information as an autonomous system, but rather by more careful attention to creativity as a social phenomenon manifested through creative practice."[117]

Professor Cohen aims to locate the public domain in the context of creative practice, suggesting that it is best understood as an integral part of the cultural landscape in which creative practice occurs.[118] The public domain "is not a discrete preserve, but rather a distributed property of social space."[119] Cohen also describes this space as "everywhere the public is," and characterizes it as a "cultural

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113. Lange, *supra* note 109, at 474.

114. *Id.* at 479 (quoting David Lange & Jennifer Lange Anderson, *Copyright, Fair Use and Transformative Critical Appropriation* (2001), http://www.law.duke.edu/pd/papers/langeand.pdf (last visited on Jan. 6, 2006)).

115. Cohen, *supra* note 1 (manuscript at 19).

116. *Id.*

117. *Id.* (manuscript at 52).

118. *Id.* (manuscript at 4).

119. *Id.* (manuscript at 41).

landscape."[120] Creators should have, Cohen believes, "baseline rights" to engage in "unplanned, fortuitous access and opportunistic borrowing" from this cultural landscape.[121] The principal policy prescription that follows from her conception of the public domain can be succinctly stated: "If we as a society want to facilitate the development of artistic culture, copyright doctrine should recognize rights of access to the common in culture to a far greater extent than it currently does."[122] Copyright doctrine should accordingly be reformed to narrow the scope of protection that the law now provides to rights holders against those who reproduce portions of existing works in the course of preparing their own works, particularly those who make transformative derivative works.[123]

I. PD 9: A Communicative Sphere

Many eloquent musings about the public domain focus on its importance to deliberative democracy.[124] Among the most recent contributions to this genre is an essay by Professor Michael Birnhack, in which he asserts that the public domain plays

> a crucial role in personal self-development, learning, experiencing, imagining, speaking with others, creating new works for the benefit of ourselves and wider circles, starting from the immediate interlocutor and up to the entire community. The public domain is the means and the end to "promote the progress of science" (in the U.S. Constitution's formulation), or for "the encouragement of learning" (in the language of the Statute of Anne). It is where knowledge is created and where it lies awaiting new interpretations,

120. *Id.* (manuscript at 42).

121. *Id.*

122. *Id.* (manuscript at 4).

123. *Id.*

124. *See, e.g.*, BOLLIER, *supra* note 79, at 1 ("[T]he public domain has always been critical to new creativity, the progress of science and technology and the vitality of our democratic culture."); KRANICH, *supra* note 79, at 1 ("Building the information commons is essential to 21st century democracy . . . ."); Yochai Benkler, *Freedom in the Commons: Towards a Political Economy of Information*, 52 DUKE L.J. 1245, 1262 (2003) ("The industrial model of mass media communications that dominated the twentieth century suffers from two types of democratic deficits that could be alleviated by a greater role for commons-based production."); Zimmerman, *supra* note 31, at 310 ("[T]he personal and social values of autonomy and participation in self governance . . . are supported by access to a large commons . . . .").

> new applications and new meanings. It is not a graveyard, but a playground for speech-experiments.[125]

The public domain and free speech are important, he thinks, not only because they foster self-actualization and progress of science, but also because both

> construct, or aim at constructing, a communicative sphere, where people can interact with each other in various circles, whether it is an interpersonal circle, a communitarian one or a wider political circle. In this sense, both the public domain and the idea of freedom of speech stem from the same source.[126]

He thereby elevates the public domain to the same fundamental human right status as free speech.[127]

Professor Birnhack explains his conception of the public domain as a communicative sphere by observing that:

> [B]oth copyright law and free speech jurisprudence aim at a rich and diverse public domain, in which deliberation can take place without any impediments, in which all who wish can participate, regardless of their market power. It is a public domain which is interested in the exchange between the multiple voices and their expressions, which realizes that new ideas form when old ideas interact. In other words, this is a public domain that rejects cultural control which is executed through the use of property rights; it is a public domain that is required by the best reading we can offer for both copyright law and for free speech jurisprudence. It is a public domain which enables new participants to join in, build on the existing work, and that acknowledges that repetition in a different context changes the meaning of a work, and thus should be considered a new work.[128]

Birnhack's conception of the public domain resembles Professor Lange's and Professor Cohen's in its concern about the implications of the public domain for self-actualization and freedom of expression, but his conception is less focused on individual creators and more on

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125. Michael Birnhack, *More or Better? Shaping the Public Domain*, *in* THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1 (manuscript at 2–3) (citation omitted).

126. *Id.* (manuscript at 5).

127. Professor Birnhack seems to agree with Professor Zimmerman, *supra* note 31, about the constitutional status of the public domain, but like Professor Lange, *supra* note 109, and Professor Cohen, *supra* note 1, his public domain has a more affirmative character. It is not just a means of protecting an information resource from being privatized, but it provides a right to engage in public discourse and use information resources in doing so.

128. Birnhack, *supra* note 123 (manuscript at 34–35).

the societal infrastructure that more generally supports the lively discourse that Habermas famously characterized as the public sphere.[129]

J. PD 10: Publication of Governmental Information

Like Professor Birnhack, Professor Edward Lee is concerned with the implications of the public domain for deliberative democracy. Lee's public domain, however, focuses on the publication of previously secret governmental information. Lee gives as an example of this public domain a judicial opinion critical of government investigations pursuant to the Foreign Intelligence Surveillance Act (FISA).[130] Publication of this opinion[131] contributed the knowledge it contained about government misconduct into a public domain. Lee's public domain "helps to establish a legal restraint against government overreaching by ensuring the public's access to materials that are essential for self-governance and a learned citizenry."[132]

Professor Lee is critical of public domain scholarship authored by intellectual property professors, characterizing it as "shortsighted" because it is too focused on a public domain of works free from IPRs.[133] Lee points out that the public domain is an important concept in other areas of law, such as "First Amendment rights of access, government secrecy agreements, espionage law, laws regulating classified information and munitions lists, and the Freedom of Information Act."[134] Collectively, Lee regards the public domain as a safeguard against excessive government secrecy. "Injecting information into the public domain is the perfect antidote to government abuses that are carried out by means of secrecy. The

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129. *See generally* JÜRGEN HABERMAS, THE STRUCTURAL TRANSFORMATION OF THE PUBLIC SPHERE: AN INQUIRY INTO A CATEGORY OF BOURGEOIS SOCIETY (Thomas Burger trans., MIT Press 1989) (1962). Although Mary Beth Peters, the U.S. Register of Copyrights, would surely disagree with much of Professor Birnhack's analysis, her use of "public domain" in the title of a recent lecture (*Copyright Enters the Public Domain*) to indicate growing public awareness of and debate about copyright, somewhat resembles Birnhack's conception of the public domain as a communicative sphere. *See supra* note 22.

130. Lee, *supra* note 18, at 94.

131. *In re* All Matters Submitted to the Foreign Intelligence Surveillance Court, 218 F. Supp. 2d 611 (Foreign Int. Surv. Ct. 2002).

132. Lee, *supra* note 18, at 97.

133. *Id.*

134. *Id.*

public domain counters secrecy with public scrutiny."[135] Lee demonstrates that his public domain has historical antecedents worthy of consideration in the scholarly debate about public domains.

K. PD 11: A Domain of Publicly Accessible Information

Professors Graeme Dinwoodie and Rochelle Dreyfuss, like Professor Reichman and Dr. Uhlir, are concerned with preserving the public domain of science.[136] In a recent work, they consider whether the public domain of science has been harmed by the substantial surge in patenting of scientific and other technological innovations.[137] Some innovations now being patented, they assert, would in the past have been in an IP-free public domain. Increased patenting might seem to cause the public domain of science to shrink. Yet, patent law requires inventors to disclose their innovations and how to make them in order to qualify for IP rights, and patent disclosures advance knowledge. "What matters," Dinwoodie and Dreyfuss suggest, "is whether the information a second comer needs is available for use" in a domain that might be called "the domain of accessible knowledge."[138] If increased patenting enlarges the domain of accessible knowledge, perhaps the public domain of science is enhanced, not harmed, by the additional patents.[139] Dinwoodie and

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135. *Id.* Lee contends that the public has vested interests in public domain information, *id.* at 119, and that "Congress has no power to remove material from the public domain through the grant of intellectual property rights," *id.* at 205. He also argues for a public right of access to public domain information. *Id.* at 206–07.

136. *See* Graeme B. Dinwoodie & Rochelle Cooper Dreyfuss, *WTO Dispute Resolution and the Preservation of the Public Domain of Science Under International Law*, *in* INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY REGIME 861, 863 (Keith E. Maskus & Jerome H. Reichman eds., 2005) ("Evaluating a broad range of approaches would allow us to fully probe the provisions of the TRIPS Agreement to see which are most hospitable to protecting the public domain of science.").

137. Graeme B. Dinwoodie & Rochelle Cooper Dreyfuss, Patenting Science: Protecting the Domain of Accessible Knowledge *in* THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1 (manuscript at 3, on file with the *Duke Law Journal*).

138. *Id.* Other works that consider policies for promoting public access to scientific knowledge include Robert P. Merges, *Property Rights Theory and the Commons: The Case of Scientific Research*, *in* SCIENTIFIC INNOVATION, PHILOSOPHY, AND PUBLIC POLICY 145 (Ellen Frankel Paul, Fred D. Miller, Jr. & Jeffrey Paul, eds., 1996) and Arti Rai & Rebecca S. Eisenberg, *Bayh-Dole Reform and the Progress of Biomedicine*, 66 LAW & CONTEMP. PROBS. 289 (Winter/Spring 2003).

139. *See* Dinwoodie & Dreyfuss, *supra* note 137, at 7 ("[T]he domain of accessible knowledge benefits from the upswing in issuances. Since the other side of the patent coin is disclosure, more patents mean more information is revealed in the specifications, with the result that more information is available for immediate use."). Dinwoodie and Dreyfuss recognize that

Dreyfuss are not alone in considering the domain of accessible knowledge as a public domain.[140]

L. PD 12: The Unpublished Public Domain

The public domain conceptions considered thus far have assumed, even if sometimes implicitly, that the contents of the public domain are "public" in the sense that they are publicly accessible. Professor Tony Reese has discovered the existence of a public domain of unpublished works.[141] He has identified three categories of unpublished works created prior to 1933 that entered an IP-free public domain on January 1, 2003, as a matter of U.S. copyright law: (1) private works, such as journals, (2) preparatory works, such as first drafts of novels, and (3) publicly displayed or performed works, such as radio broadcasts.[142] Although television programs may be viewed by millions of people, U.S. copyright law does not consider them to be "published" because copies of them have not been distributed to the public.[143] Reese suggests that "[a]dding to the public domain works that have been kept private may change the legal regulation of the public domain."[144] Perhaps even more significant is

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if the increase in patenting of scientific innovations is occurring because of inappropriately low standards of invention, then patents on "trivial variations and marginal improvements essentially withdraw[] from the public domain information that, effectively, was already there: either it was described in the literature, or was so easily grasped, the patent system was not needed to encourage the advance." *Id.* at 12.

140. Australian scholars Brad Sherman and Leanne Wiseman also consider the domain of accessible information as a public domain. They distinguish among: (1) that which is secret, (2) that which is public domain and unencumbered by intellectual property rights, and (3) that which is public domain but encumbered by intellectual property rights. Sherman & Wiseman, *supra* note 21 (manuscript at 10). Yet, Sherman and Wiseman also use "public domain" to denote IP-free information artifacts and resources, as in Public Domains Number 1 and 2. *Id.* at (manuscript at 1–2).

141. *See* R. Anthony Reese, The New Unpublished Public Domain 2 (Aug. 2005) (unpublished manuscript, on file with the author) ("[T]he nature of the public domain has been significantly changed, by including for the first time a substantial body of material that is legally unprotected by copyright but that has never been publicly disclosed."). This unpublished public domain might be viewed as a subset of PD 1 (IP-free information artifacts), but it has not previously been recognized as such. Because Reese claims that this public domain changes the nature of the public domain, *see infra* note 145 and accompanying text, it is better to recognize it as its own public domain.

142. Reese, *supra* note 141, at 1.

143. *See* 17 U.S.C. § 101 (2000) (defining "publication").

144. Reese, *supra* note 141, at 1. One reason that legal regulation of the public domain might change is that possessors of unpublished works may raise state law claims to protect the works against unauthorized uses, raising as yet unanswered preemption and Supremacy Clause issues. Reese discusses these issues. *Id.* at 26–31.

the change it creates in "the nature of the public domain by . . . ending copyright's legal restrictions on works that have not been publicly disclosed."[145]

Although the legislative history of the law that created this new public domain is sparse, the unpublished public domain was a byproduct of abolishing state common law protection for unpublished works, hitherto conceived as perpetual in duration.[146] After the effective date of this law, original works, whether published or unpublished, were granted copyright protection for the life of the author plus fifty years.[147] To induce publication of unpublished works, Congress gave their authors twenty-five years of exclusive rights if the "life plus" term had either expired or nearly so.[148] On January 1, 2003, that twenty-five-year term expired, and consequently, all unpublished works created before 1933 entered an unpublished public domain on that day.[149] Each January since then, a new wave of unpublished works enters this unpublished public domain.

Some possessors of such unpublished works may want to make them widely available without restriction,[150] but others may decide to exercise personal property rights in artifacts embodying these works to assert legal control over uses that can be made of their contents.[151] Professor Reese concludes that possessors of such works probably can contractually restrict access to and uses that can be made of these

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145. *Id.* at 48. Reese points out that

> the traditional phrase "public domain" simultaneously reflected two different senses of the word "public." The public domain was not "private" in two ways. First, works in the public domain were not the *private property* of any individual; they were instead common and open to the public for use without restriction. Second, works in the public domain were not *private* in the sense of being shielded from public view or held in confidence; instead, virtually every work in the public domain had been made available to the public.

Id. at 21 (citation omitted).

146. *Id.* at 3.

147. 17 U.S.C. §. 302(a) (2000). The "plus" term was extended to 70 years by the Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, § 102(b)(1), 112 Stat. 2827, 2827 (1998). Section 302 also provides duration rules for joint works, works for hire, and anonymous works. 17 U.S.C. § 302 (b)–(c).

148. 17 U.S.C. § 303(a) (2000).

149. Reese says that "[t]his was probably the largest single deposit of material into the public domain in history." Reese, *supra* note 141, at 1.

150. Public libraries and archives may be eager to share unpublished works with the public because they may perceive their missions to be to promote wide public access to information.

151. Museums, for example, often condition public access to their collections on agreements not to take pictures or to take pictures only for noncommercial purposes. Reese, *supra* note 141, at 29.

works, notwithstanding the IP-free legal status of the information embodied in them and of the information artifacts themselves.[152]

M. PD 13: The Romantic (or Imperialist) Public Domain

Professor Reese's is not the only unconventional public domain in the literature. Critics of Western-style public domain concepts (in the sense of IP-free information resources) express concern about the implications of these concepts for indigenous people who want some legal protection for commercially valuable traditional knowledge.[153] Insofar as traditional knowledge is secret or is disclosed in confidence, indigenous people can enforce their rights in traditional knowledge because Western-style intellectual property regimes protect secrets from misappropriation through trade secret and breach of confidence laws.[154] When Western firms acquire nonsecret traditional knowledge, however, they feel justified in appropriating the knowledge without compensating the indigenous communities from which it comes because they believe it to be in an IP-free public domain.[155] Western public domain concepts are often at odds with customary norms of indigenous cultures that regulate appropriate and inappropriate uses of accessible traditional knowledge. The IP-free

152. *See id.* at 31 ("[A]rchival conditional access contracts may in many instances be quite practically effective . . . ."). Reese also considers whether Congress should adopt an exclusive right of first publication to induce publication of unpublished public domain works and concludes it should not. *Id.* at 31–48. However, Congress might choose to grant such a right to conform to a similar right in EU law. *See* Council Directive 93/98, art. 4, 1993 O.J. (L 290) 9 (establishing a term of protection for previously unpublished works first published after copyright protection has expired). If Congress does decide to grant a new exclusive right to possessors of unpublished works, Reese believes that the right should be carefully circumscribed. Reese, *supra* note 141, at 46–48. He recommends, for instance, that the right not be automatically granted, but only made available to those who affirmatively register their claim and deposit copies of the works. Registration, and other limitations Reese proposes, would reduce transactions costs that would otherwise be imposed by such a new exclusive right. *Id.* at 46–47.

153. *See, e.g.*, Chander & Sunder, *supra* note 21, at 1335 ("Native people once stood for the commons. But in the advent of an awareness of the valuable genetic and knowledge resources within native communities and lesser developed nations, the advocates for the public domain—and, in turn, propertization—have flipped."); Sherman & Wiseman, *supra* note 21 (manuscript at 6) ("Many of the problems associated with the general expansion of intellectual property rights have also been raised in relation to the use of intellectual property rights to protect Indigenous creations.").

154. Sherman & Wiseman, *supra* note 21 (manuscript at 4, 11–12).

155. For examples, see JAMES BOYLE, SHAMANS, SOFTWARE, AND SPLEENS: LAW AND THE CONSTRUCTION OF THE INFORMATION SOCIETY 125–28 (1996).

public domain can seem to members of indigenous cultures and their sympathizers like yet another tool of Western imperialism.[156]

Professors Brad Sherman and Leanne Wiseman, who have studied Australian aboriginal traditional knowledge policy, observe:

> Given the differences that exist between the Indigenous aesthetic and that which underpins Western intellectual property law, and the ways in which public domain ideals have been used as tools of exploitation and colonisation, it is not surprising that Indigenous groups have been critical of the public domain and the application of intellectual property to Indigenous creations. . . . If we are to take Indigenous issues seriously it is clear that we need to reject proposals that simply attempt to balance private and public interests. . . . More specifically, it is necessary to reconfigure the public domain so that it supports and fosters, rather than undermines, Indigenous interests. That is, it is necessary to create and recognise the domains established under customary or indigenous law as new spaces within the legal landscape, rather than merely applying spatial configurations developed in other contexts to Indigenous creations.[157]

Professors Anupam Chander and Madhavi Sunder also take seriously concerns of indigenous cultures about appropriation of traditional knowledge. They have criticized public domain advocates for having a romantic view of the public domain. This romantic view causes these advocates to resist "each and every new claim for property rights as an encroachment on the public domain,"[158] and in

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156. *See* Chander & Sunder, *supra* note 21, at 1335 ("[F]or centuries the public domain has been a source for exploiting the labor and bodies of the disempowered—namely, people of color, the poor, women, and people from the global South.").

157. Sherman & Wiseman, *supra* note 21 (manuscript at 13–14) (citations omitted). Sherman and Wiseman propose to reconcile these tensions by protecting traditional knowledge through legal rules akin to those that protect geographic designations of origin (*e.g.*, Roquefort for blue cheese, Sancerre for wine). *Id.* (manuscript at 17–18). Uses of traditional knowledge that falsely imply derivation from a particular indigenous culture, for example, could be regulated without undermining Western-style IP-free public domain concepts. Other scholars propose protecting traditional knowledge through liability rules. *See, e.g.*, J.H. Reichman & Tracy Lewis, *Using Liability Rules to Stimulate Local Innovation in Developing Countries: Application to Traditional Knowledge*, *in* INTERNATIONAL PUBLIC GOODS AND TRANSFER OF TECHNOLOGY UNDER A GLOBALIZED INTELLECTUAL PROPERTY REGIME, *supra* note 136, at 337, 338 ("Our thesis is that a properly designed liability rule to protect small-scale innovation in developing countries would overcome investors' fears of market failure with fewer social costs than would accrue either under a regime of unbridled copying or under a regime of hybrid exclusive property rights . . . .").

158. Chander & Sunder, *supra* note 21, at 1335.

so doing, they "join hands with the corporations to keep traditional knowledge and genetic resource [sic] in the global commons."[159] This may "(1) legitimate the current distribution of intellectual property rights, (2) mask how current constructions of the public domain disadvantage and subordinate indigenous and other disempowered groups globally, and (3) impair efforts by disempowered groups to claim themselves as subjects of property . . . ."[160] Although sympathetic with the goals of public domain advocates, Chander and Sunder recommend that these advocates adopt a more nuanced and cautious stance toward the public domain and recognize the justice of claims of indigenous peoples as to Western appropriation of traditional knowledge and plant genetic resources.[161] Their romantic public domain is, thus, a reaction to and pushback against several of the public domains previously discussed.

II. WHY SO MANY PUBLIC DOMAINS AND WHAT DO THEY HAVE IN COMMON?

Professor Boyle's *Second Enclosure* article recognizes four public domains.[162] Four is a relatively manageable number of public domains to keep straight. Even Boyle, however, might find it daunting to keep track of thirteen public domains.[163] In the spirit of facilitating nuanced discourse about the multiplicity of public domains, this Part will consider why public domains have proliferated and then suggest some commonalities among them. The commonalities allow some clustering of public domains to make discourse about and among the many public domains more manageable.

159. *Id.* at 1336.

160. *Id.* at 1335.

161. *See id.* at 1334 ("We are sympathetic to the project to protect the public domain . . . [b]ut we are also concerned that the increasingly binary tenor of current intellectual property debates . . . obscures other important interests, options, critiques, and claims for justice . . . .").

162. Boyle, *supra* note 3, at 59–62. They were, in this Lecture's terminology, PD 1 (IP-free information artifacts), 2 (IP-free information resources), 5 (broadly usable information resources), and 6 (contractually constructed commons).

163. For five other public domains that could have been, but were not, discussed in this Lecture, see *supra* note 22.

A. Explanations for Proliferation of Public Domains

Professor Boyle suggests that fear has contributed to the growth in public domains;[164] that is, some definitions reflect what scholars articulating them fear might happen to undermine a socially valuable realm of freely usable information resources. There is certainly some truth in this observation. Professor Lange was initially motivated to recognize an IP-free public domain because he feared that publicity and dilution rights were encroaching on a public domain of information resources that, as a creator, he valued for its availability for free appropriation.[165] Boyle fears a second enclosure movement in which stronger intellectual property rights, buttressed by such things as technical protections and restrictive licensing rules, will choke off, rather than promote, innovation and other socially valuable uses of information.[166] The science commons proposed by Professor Reichman and Dr. Uhlir is a response to their fears that increasing propertization of scientific work will undermine scientific progress.[167] Although their concerns run in the opposite direction, Professors Chander and Sunder similarly seem to have defined their romantic public domain because of fears that unreflective public domain advocacy may undermine the distributive justice claims of indigenous peoples arising from Western exploitations of their cultural resources.[168]

Some differences in public domain definitions are, however, due to different conceptual groundings, purposes that authors have in putting the definitions forward, and audiences being addressed. If one grounds one's conception of a public domain in the U.S. Constitution, as Professors Zimmerman and Birnhack do,[169] the result will be different than if a public domain is grounded in principles of justice towards indigenous peoples. Grounding a public domain in positive

164. Boyle, *supra* note 2, at 29.

165. Lange, *supra* note 109, at 469–70.

166. *See* Boyle, *supra* note 3, at 44 ("More property rights, even though they supposedly offer greater incentive, do not necessarily make for more and better productions and innovation—sometimes just the opposite is true."); *see also* James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?*, 47 DUKE L.J. 87, 98–99 (1997) ("The ironic result is that a regime which lauds and proposes to encourage the great creator, may in that process actually take away the raw materials which future creators need to produce *their* little piece of innovation.").

167. *See supra* notes 92–102 and accompanying text.

168. *See supra* notes 151–61 and accompanying text.

169. *See supra* notes 53–56, 125–28 and accompanying text.

law will, in contrast, tend to produce a definition focused on the absence of intellectual property rights.[170]

Conceptual groundings, purposes, and audiences are sometimes interrelated. For instance, Professors Zimmerman and Birnhack aspire to construct a constitutional fence around their public domains that Congress and courts cannot breach. Their intended audience is principally other scholars and courts. If they can convince other scholars to agree on a constitutional public domain, this may influence the courts to follow a scholarly consensus favoring protection of this domain. Professor Benkler and Professor David Bollier use the term *public domain* more generally to denote freedoms to use information resources in an effort to galvanize popular awareness of free speech values served by the public domain. Their main purpose is to encourage a new and more public-regarding politics of intellectual property.

Other conceptions of public domains seem to have been born out of dissatisfaction with the "traditional, absolutist conception of the public domain" (that is, information resources unencumbered by intellectual property rights).[171] IP-free definitions of public domain seem too dull, too tired, too old, too isolated, and too passive to express the positive values of the public domain that scholars who have been studying it perceive it to have. When commentators use public domain and "the commons" interchangeably or use the latter to signify the former, it may be because "the commons" seems more interesting, more wired, newer, more communal, and more dynamic than the IP-free public domain.

Professor Lange's conception of public domain as a status presumptively empowering creators to appropriate from the works of others, for example, is designed to give the public domain a more dynamic and affirmative character. Professor Cohen articulates a sociology of the creative process as a way to give vitality to her conception of a public domain situated as a resource to draw from in a situated cultural landscape.[172] Cohen objects to the term *public domain* because it is not, as the term implies, a place separate and

170. *See, e.g.*, Samuels, *supra* note 16, at 137 ("Is the public domain simply whatever is left over after various tests of legal protection have been applied? Is it mere 'background,' the 'negative' of whatever may be protected?").

171. Boyle, *supra* note 3, at 61.

172. Cohen, *supra* note 1 (manuscript at 19–41).

apart from the realm of IP-protected content.[173] Rather, the public domain is an integral part of the cultural landscape, from which everyone should be able to draw.

Professor Cohen would probably prefer to coin an alternative term, for she considers *public domain* to be metaphorically burdened by the original American usage that valorizes private appropriation of the public domain of unsettled lands.[174] Yet, because the term has become a standard metaphor to describe IP-free information resources, Cohen strives instead to broaden and breathe new life into this concept. Professor Edward Lee, in contrast, draws upon positive conceptions of public domain from legal contexts other than IP law, and suggests that these positive conceptions have resonance for the IP debate about the public domain.

Finally, public domain concepts may have proliferated in recent years because "the public domain," as such, does not really exist. It is a metaphor, a social-legal construct, that serves "an instrumental purpose—to assist us in thinking of a complex issue, to organize our thoughts, to serve as a 'short cut' to denote a mindset, a view, a perception"[175] about the legal status of different types of information and what can be done with this information.

B. Clustering Multiple Public Domains

Though each definition of public domain was separately articulated in Part I, there is obvious overlap among definitions. The definitions cluster around three main foci: the legal status of information resources, freedoms to use information resources, and the accessibility of information resources.

Legal status definitions consider whether information resources are or can be encumbered by intellectual property rights. PD 1 (IP-free information artifacts), 2 (IP-free information resources), and 12 (the unpublished public domain) are three examples of this focus. PD 3 (the constitutional or mandatory public domain), in essence, revisits PD 2 with an eye to carving out what, as a matter of U.S.

173. *Id.* (manuscript at 4).

174. *Id.* (manuscript at 52).

175. E-mail from Michael Birnhack, Senior Lecturer, Faculty of Law, University of Haifa, to Pamela Samuelson, Chancellor's Professor of Law and Information Management, University of California at Berkeley (Oct. 28, 2005) (on file with the *Duke Law Journal*). *See generally* GEORGE LAKOFF & MARK JOHNSON, METAPHORS WE LIVE BY (1980) (discussing how metaphors shape how humans think about the phenomenon they perceive).

constitutional law, must be there and stay there. PD 4 (the privatizable public domain) was born of the recognition that PD 3 is not coextensive with the public domain of IP-free information resources. The privatizable public domain needed to be recognized because PD 2 encompasses more than PD 3, and PD 4 is the realm of PD 2 that lies outside of PD 3. If Professor Reese, the discoverer of PD 12, is correct that the unpublished public domain can constitutionally be privatized,[176] the unpublished public domain would itself be a subset of the privatizable public domain (i.e., PD 4).

Six public domains focus on freedoms to use information resources even when works embodying these resources are protected by intellectual property rights. PD 5 (broadly usable information resources) is the clearest example. This public domain encompasses the whole of PD 2 (IP-free information resources), but also includes unregulated, implicitly licensed, unambiguously fair, and otherwise privileged uses of IP-protected information resources. PD 5 builds on the insight that ordinary persons do not care if an information resource is IP-protected as long as they can freely use the resource.

Richard Stallman and Professor Lawrence Lessig invoke freedom as the principal rationale for creating the contractually constructed commons of GPL and Creative Commons licenses (PD 6).[177] These licenses provide greater freedoms to use information resources than default IP rules and common proprietary licensing practices generally permit,[178] although GPL and CC-licensed content are certainly less free than IP-free information resources. These licenses have been conceived by some as a "partial dedication" of information resources to the public domain.[179]

Professors Lange and Cohen seek to promote freedoms for artists, authors, and other creators. Their public domains (PD 7 and

176. Reese, *supra* note 138, at 33–39.

177. *See, e.g.*, LAWRENCE LESSIG, FREE CULTURE: HOW BIG MEDIA USES TECHNOLOGY AND THE LAW TO LOCK DOWN CULTURE AND CONTROL CREATIVITY, at xiv (2004) ("[T]he free culture that I defend in this book is a balance between anarchy and control."); Richard Stallman, The GNU Manifesto, Free Software Foundation (FSF) (2005), http://www.gnu.org/gnu/manifesto.html (last visited Jan. 15, 2006) ("Software sellers want to divide the users and conquer them . . . . I refuse to break solidarity with other users in this way.").

178. The GPL, for instance, requires publication of source code and allows modification of program code, whereas proprietary software is generally distributed without source code and licenses forbid modification. Free Software Foundation, Licenses, http://www.fsf.org/licensing/licenses/index_html (last visited Jan. 16, 2006).

179. Merges, *supra* note 75, at 199 (emphasis omitted).

8) would, respectively, grant artists a status presumptively entitling them to appropriate from others' works and provide a cultural landscape from which creators would be free to draw whatever inspired them to engage in artistic self-expression.[180] Although Cohen and Lange express their visions of public domain quite differently, there is a deep similarity in their visions.

Professor Birnhack's communicative sphere public domain (PD 9) imagines freedom to engage and be engaged with information resources as a core constitutional principle. This sphere would, I believe, encompass the Cohen and Lange artistic creation public domains, as well as Professor Benkler's public domain of broad uses.[181] Birnhack's communicative sphere conception would probably also encompass Professor Lee's public domain of publicly disclosed government information (PD 10) which, at its core, is also a public domain concerned with freedom to use information to promote democratic discourse and governance.[182]

A key distinguishing feature of Professor Lee's public domain (PD 10) is the attention he gives to the importance of accessibility of information.[183] When a journalist obtains a copy of a secret government document that, say, casts doubt on the veracity of statements of government officials, and disseminates information from that document to the public in a newspaper, the journalist dedicates that information to a public domain that will fuel democratic discourse.[184] The legal status of the document and information embedded in it will depend not on intellectual property laws, but on laws such as those that protect classified information and other government secrets from disclosure.[185] The journalist may face legal liability for disclosing information of concern to the government,

180. *See supra* notes 103–23 and accompanying text.

181. Professors Chander and Sunder's romantic public domain (PD 13) is the most difficult to fit into the clusters discussed in this Section. In a sense, these scholars are concerned with freedom too, albeit in a different way than those whose public domains are defined in terms of freedoms that they do or should provide to creators or members of the general public. Chander and Sunder are concerned that these public domain advocates may make this domain too free for commercial appropriation by Western firms.

182. Birnhack does not, however, mention Lee's public domain.

183. *See supra* notes 130–35 and accompanying text.

184. *See* Lee, *supra* note 19, at 136–37 ("[T]he concept of the public domain helps to establish a lethal restraint against government overreaching by ensuring the public's access to materials that are essential for self-governance and a learned citizenry.").

185. U.S. government works are ineligible for copyright protection in the U.S. under 17 U.S.C. § 105 (2000).

but the information itself, once published, is irretrievably part of a public domain of information resources such as PD 2.[186]

Professors Dinwoodie and Dreyfuss also emphasize the accessibility of information, although their concern is with the accessibility of scientific information instead of government information.[187] Their public domain (PD 11) is a zone in which information may be encumbered by intellectual property rights, but is disclosed to the public as a condition of obtaining these rights. Dinwoodie and Dreyfuss point out that if researchers cannot obtain intellectual property rights on research results, they may well keep the results secret. Patenting may disclose important details about the discovery, how it differs from the prior art, and how to make it. This information will immediately enter the IP-free PD 2, although certain uses of the information will need to be licensed until the patent expires. If society has to choose between public accessibility through patents and inaccessibility without patents, the former would be the more prudent choice because accessible information is more likely to advance the state of knowledge in fields of science than inaccessible information.

Professor Reese's unpublished public domain (PD 12) focuses on the legal status of unpublished works created before the mid-1930s, but accessibility is very much at the heart of Reese's concerns about this domain.[188] Hence, his public domain also belongs in the accessibility cluster. Reese implicitly asks what it means for an information artifact to be in a copyright-free public domain if it is not publicly accessible. If possessors of information artifacts have personal property rights that include the right to control all access to and uses of the information artifact and any information it may contain, the public does not really derive any benefit from the existence of an unpublished public domain. Physical control over the artifact embodying IP-free information may, if Reese is right, convey more power to control uses than IP laws would provide.[189]

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186. *See supra* notes 130–35 and accompanying text.

187. *See supra* notes 136–40 and accompanying text.

188. *See supra* notes 141–52 and accompanying text.

189. *See* Reese, *supra* note 141, at 24–25 ("While copyright might permit anyone to make and distribute copies of an old unpublished work, no one can engage in those activities without having access to the work . . . .").

C. Lessons Learned

Several lessons emerge from clustering these public domains. First, although the legal status of information resources and public accessibility are, in a sense, orthogonal dimensions, the most robust public domains are those which are free (or relatively so) of IP encumbrances while at the same time being broadly accessible to members of the public. Figure 1 depicts a matrix that clusters public domains by legal status and accessibility.[190]

Figure 1. IP Status and Accessibility Matrix

	Encumbered by IPRs?	
Publicly Accessible?	**Yes**	**No**
Yes	PD 5, 6, 9, 11 (broad use; contractual commons; communal sphere; zone of accessible information)	PD 1, 2, 3, 4, 10 (4 kinds of IP-free PD + disclosed government information)
No	Not in the public domain (e.g., private letters in copyright)	PD 12 (unpublished public domain)

From the standpoint of public domain advocates, the optimal sector for information resources is the sector that is both unencumbered by IPR constraints and publicly accessible (the upper-right quadrant). These information resources are freely reusable for all purposes. The second-best quadrant is the upper-left quadrant, where information resources are encumbered by IPRs, but accessible and broadly usable for many, although not all, purposes. The quadrant of inaccessible information unencumbered by IPRs may provide some public benefit as compared with the quadrant of inaccessible encumbered information insofar as the IP-free legal status removes an impediment to publication for possessors of some such information.

A second lesson is that although it may be common to conceive of information as either being in an IP-free public domain or encumbered by IP rights, the public domain literature reveals a

190. Some public domain concepts, such as Professor Cohen's cultural landscape and Professors Chander and Sunder's romantic public domain, cannot be depicted in this matrix, but most can be.

continuum of legal states in between those endpoints. Figure 2 depicts this spectrum:

Figure 2. Legal-Status Spectrum

Most Restrictive **Least Restrictive**

IPRs+ K+ TPM	IPRs+ K	IPRs (but fair use)	GPL/ open source	CC license	Implicit license (WWW)	IP-free public domain	Constitutional public domain

The left end of the spectrum in Figure 2 shows that intellectual property rights are not the most restrictive form of information regulation. Licenses (represented as *K* for *contract*) may limit uses that would otherwise be unregulated or privileged by IP laws.[191] Technical protection measures (TPM) may further restrict uses and be backed up legally by anticircumvention rules.[192] Because this triple protection may be more restrictive than IPRs alone, the triple protection seems to belong at the far end of the legal-status spectrum. IPR-protected works are more public domain friendly than works that are protected by contract and technology, as well as IPRs, because of the unprotectability of ideas and information, fair use, and other privileged and unregulated uses.

The GPL and open source licenses allow a far broader range of uses than most proprietary software licenses, yet they are, as compared with wholly free IP-information resources, much more restrictive.[193] Because CC licenses contain fewer constraints, on

191. *See, e.g.*, David Nimmer et al., *The Metamorphosis of Contract Into Expand*, 87 CAL. L. REV. 17, 23 (1999) ("[The delicate] balance [of copyright law] is disrupted when state [contract] law is permitted to enlarge the rights of copyright proprietors at the expense of copyright users.").

192. *See* 17 U.S.C. § 1201(a)(1)(A) (2000) ("No person shall circumvent a technological measure that effectively controls access to a work protected under this title."). *See* Symposium, *The Law & Technology of Digital Rights Management*, 18 BERKELEY TECH. L.J. 487, 487 (2003) ("The idea of building copy restrictions into software and hardware has emerged as a common response to . . . unauthorized copying . . . . What has varied is the extent to which changes in the law, sometimes as drastic as technological mandates, prescribed and protected such technological controls.").

193. *See, e.g.*, Niva Elkin-Koren, *Exploring Creative Commons: A Skeptical View of a Worthy Pursuit*, *in* THE PUBLIC DOMAIN OF INFORMATION, *supra* note 1, at 3.

average, than GPL or open source licenses, Figure 2 places CC license toward the less restricted end of the spectrum. Of course, some CC licenses are more restrictive than others (e.g., some allow noncommercial uses but not derivative works, whereas others permit the making of derivatives).[194] Thus, CC licenses are not really a single point on the legal status spectrum, but rather are themselves a minispectrum of license options.

Less restrictive than CC-licensed content is information posted on open sites on the World Wide Web that is, at least implicitly, licensed for most uses. Even at the IP-free end of the spectrum, the legal status of an information resource may still be differentiated. Some information resources are more likely than others to be constitutionally protected from privatization.

Public domain scholars draw the line for their public domain somewhere on this spectrum between the triply encumbered information resources and the constitutional public domain. For many scholars, the public domain is at the IP-free endpoint(s) of the spectrum,[195] whereas for others, the public domain lies more in the middle of the spectrum.[196]

Accessibility, too, is not a bipolar concept, but a relative concept that can also be depicted as a spectrum ranging between the endpoints of complete public accessibility and complete inaccessibility. Figure 3 shows this spectrum.

Figure 3. Accessibility Spectrum

Complete inaccessibility						**Complete accessibility**
Buried (none can see)	Secret (few can see)	Archived with restricted access (or secret licensed)	Publicly displayed but not "published"	In public record, but difficult to access	Publicly accessible if register	Publicly accessible without restriction

194. Creative Commons, Choosing a License, http://creativecommons.org/about/licenses/ (last visited Jan. 4, 2006).

195. *See, e.g.*, Ochoa, *supra* note 1, at 217–22 (discussing what is unprotected by IP and thus in the public domain); Zimmerman, *supra* note 31, at 297 ("In the standard lexicon of intellectual property law, communicative matter is divided into two parts: that which is controlled by a private 'owner' and that which resides in the public domain . . . .").

196. *See, e.g.*, Benkler, *supra* note 75, at 362 (assuming that the public domain is a range); Reichman & Uhlir, *supra* note 92, at 324–25 (advocating construction of a public domain outside of IP law through the use of contract law).

The most inaccessible information is that which has been destroyed or buried without anyone presently knowing of its existence (although buried information is occasionally uncovered). Next most inaccessible is an information resource stored in a vault or otherwise maintained as a closely guarded secret. Many secrets are, of course, licensed or otherwise distributed to one or more persons subject to implicit or explicit confidentiality restrictions.[197] Licenses vary in restrictiveness regarding who may access and use the information and for what purposes. Licensed information is, thus, a minispectrum within the larger accessibility spectrum, not just one point on the spectrum.

Licensed information may be part of the unpublished public domain, but this latter domain also includes much content, such as television and radio programming and paintings mounted on the walls of public museums.[198] Because publicly displayed information is much more accessible than licensed secrets or information kept in vaults, it is depicted in Figure 3 as lying toward the more accessible end of the spectrum. A considerable amount of information is publicly accessible (e.g., court records) if one is willing to take time and effort to discover it, but is, pragmatically speaking, not as accessible as information available online for which one registers to get access (e.g., the online version of the *New York Times*). Figure 3 accommodates these insights by putting such information near, but not overlapping with, information that is publicly accessible without restriction on this spectrum. The public/private distinction, as applied to accessibility of information, is thus more nuanced and complicated than common discourse about it might suggest.

III. BENEFITS AND RISKS OF ACCEPTING MULTIPLE PUBLIC DOMAINS

Accepting the existence of multiple public domains offers several benefits. For one thing, it avoids unnecessary and likely fruitless disputes over which definition of the public domain is the "true" or "correct" one.[199] A second benefit is broadened awareness about

197. *See, e.g.*, JAMES POOLEY, TRADE SECRET LAW § 9.04[2] (1997) (reviewing the increasingly common employee confidentiality agreement).

198. Reese, *supra* note 141, at 12.

199. Accepting multiple public domains also avoids wasteful expenditures of time and energy by scholars in reconsidering and recasting previous analyses of public domain issues to take into account a later-arising consensus definition (assuming consensus could be achieved).

public domains and public domain values. When scholars, such as Professors Benkler, Birnhack, Boyle, and Lessig, speak about a wide range of free uses of information resources as a public domain that members of the public should be able to enjoy, they speak in a language accessible to the public, appealing to shared values of the American free speech culture. An intellectual property professional, although willing to agree that certain uses of information resources are beyond copyright owner control, might offer pedantic explanations for this conclusion.[200] Members of the public are likely to tune out to such explanations because they lack moral force.[201]

A third benefit of accepting multiple public domains is that context-sensitive uses can develop. One differentiator may be who is speaking. When Professor Benkler speaks of a public domain, he will mean a broader realm of information resources than Professor Zimmerman, for example.[202] Another differentiator may be the affected communities. The public domain concerns and needs of artistic communities may, for example, be different from the concerns and needs of scientific communities. Artists need freedom to engage

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Moreover, even if scholars were willing to retract their previous definitions to accommodate consensus on a different public domain definition, their prior work utilizing the old definition would still be in the literature and could still influence the views of subsequent scholars ignorant of the retraction. So at least in the short, and possibly medium, term, a consensus definition seems neither feasible nor likely to dispel future confusion.

200. A copyright lawyer might explain, for example, that it is permissible to copy ideas or information from a copyrighted work because section 102(b) of the Copyright Act of 1976 excludes them from the scope of copyright protection. *See* 17 U.S.C. § 102(b) (2000) (listing various elements of works that are not within the scope of copyright protection). It is also permissible to parody a copyrighted work under copyright law's fair use doctrine, Campbell v. Acuff-Rose Music, Inc., 510 U.S. 569, 581 (1994), although not necessarily to satirize it, *id.* at 580–81. An IP pedant would be clear that fair use and public domain are very different, both conceptually and legally.

An IP pedant might go on to say that of course no one has a "right" to engage in parody, for fair use is merely an affirmative defense to a claim of infringement. Whether fair use is a defense or a right is the subject of much debate. *See, e.g.*, NATIONAL RESEARCH COUNCIL, THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY RIGHTS IN THE INFORMATION AGE 133 & n.20 (2000) (noting the existence of a controversy over the "defense" and "right" conceptions of fair use).

201. Copyright professionals may wonder why the public doesn't respect and abide by copyright law as much and as well as copyright owners think it should. Perhaps copyright professionals should reflect upon the arcane and nit-picking language that copyright law and its statutory categorization provides them. *See* JESSICA LITMAN, DIGITAL COPYRIGHT 29, 181 (2001) (expressing concern about the incomprehensibility of copyright law).

202. *Compare supra* notes 75–77 and accompanying text (reflecting a "range" conception of the public domain), *with supra* notes 53–57 and accompanying text (reflecting an all-or-nothing conception of the public domain).

in artistic self-expression, whereas scientists need open access to and unconstrained reuse of scientific data, methods, analyses, and results.[203] A third differentiator may be the kind of information resource about which one is speaking. Some public domain resources, such as ideas, are more likely to qualify as constitutionally protected public domain information resources than, say, boat hulls or typeface designs.[204] Distinguishing the constitutionally protected public domain from the privatizable public domain may clarify debate and analysis.

A fourth benefit of accepting multiple conceptions of the public domain is that it enables more nuanced answers to some questions posed in the literature. Is the public domain shrinking, as some commentators fear?[205] If one views the public domain, as Professor Lange once did, as a kind of zero sum game, every expansion of IPRs concomitantly shrinks the public domain.[206] If one accepts ideas and information as public domain resources,[207] then publication of new copyrighted works will concomitantly expand the public domain and the copyright domain, for the ideas and information in these works will be dedicated to an IP-free public domain upon publication.[208]

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203. *Compare* Cohen, *supra* note 1, at 58 ("If one asks where the common in artistic culture may be found, the answer, quite simply, is that it is everywhere the public is, and that unplanned, fortuitous access and opportunistic borrowing are matters of the utmost importance."), *with* Reichman & Uhlir, *supra* note 92, at 317 ("Factual data are fundamental to the progress of science and to our pre-eminent system of innovation.").

204. *See supra* notes 39–56 and accompanying text (discussing a constitutional public domain); *see also supra* notes 57–74 and accompanying text (discussing a not-yet-privatized public domain).

205. Professor Lange once analogized the public domain to the decline of buffalo herds on the Western plains, *supra* note 1, at 178, although he later regretted this metaphor, *supra* note 109, at 468. For a recent work using this metaphor, see, for example, Cecil C. Kuhne III, *The Steadily Shrinking Public Domain: Inefficiencies of Existing Copyright Law in the Modern Technology Age*, 50 LOY. L. REV. 549 (2004); *see also* Duke Law School, Conference on the Public Domain: Schedule, http://www.law.duke.edu/pd/schedule.html (last visited Jan. 4, 2006) (describing a Saturday morning panel discussion on challenges to science posed by a shrinking public domain); Posting of Ann Okerson to http://www.library.yale.edu/~llicense/ListArchives/0208/msg00074.html (Aug. 20, 2002, 08:11 EST) (disseminating an invitation to a workshop on the shrinking public domain).

206. *See* Lange, *supra* note 1, at 171 ("[T]he very momentum of these expanding claims tends to blur, and then displace, important individual and collective rights in the public domain."); *id.* at 175–76 ("[T]he public domain in the field of intellectual property today can be compared to the public grazing lands on the Western plains of a century ago.").

207. *See supra* notes 30–37 and accompanying text.

208. *See, e.g.*, Baker v. Selden, 101 U.S. 99, 103 (1880) ("The copyright of a work on mathematical science cannot give to the author an exclusive right to the methods of operation which he propounds . . . .").

Similarly, if one asks whether the public domain is the same as the commons, the answer will depend on the context in which the terms are used. Professor Litman used *public domain* and *commons* interchangeably to signify that certain information resources can be used without IP or other restrictions and hence are common resources to all for all purposes.[209] But neither Professor Litman nor other public domain scholars would be confused when Professor Reichman and Dr. Uhlir use the term "commons" in relation to scientific databases.[210] Public domain scholars would also accept that the science commons would require elaborate institutional regulation of IPR-protected information resources in order to promote public domain values.[211]

A fifth, and probably the most significant, benefit of accepting multiple public domains is that one gains deeper insights about public domain values by looking at public domains from different perspectives. Distilling insights from the broad-ranging public domain scholarship, one can discern that the public domain serves many positive functions for society: as a building block for the creation of new knowledge,[212] and as an enabler of competitive imitation,[213] follow-on creation,[214] free or low cost access to information,[215] public

209. Litman, *supra* note 1, at 975 ("In the intellectual property context, the term [public domain] describes a true commons comprising elements of intellectual property that are ineligible for private ownership. The contents of the public domain may be mined by any member of the public." (footnotes omitted)).

210. *E.g.*, Reichman & Uhlir, *supra* note 92, at 462 .

211. *See, e.g.*, *id.* at 326–29 (reviewing the key role of the United States government in maintaining the research commons). The "commons" of Creative Commons is distinguishable from Professor Litman's and Professor Reichman and Dr. Uhlir's commons because this organization provides a legal infrastructure for enabling individual creators to make their works available for broad usages, while allowing them to retain control over some uses of their works. *See supra* note 194 and accompanying text.

212. *See, e.g.*, Reichman & Uhlir, *supra* note 92, at 317 ("Factual data are fundamental to the progress of science and to our preeminent system of innovation.").

213. *See, e.g.*, Ochoa, *supra* note 1, at 215 ("We take it for granted that the plays of Shakespeare and the symphonies of Beethoven are in the public domain and may be freely copied, adapted, and performed by anyone.").

214. *See, e.g.*, Litman, *supra* note 1, at 966 ("But the very act of authorship in *any* medium is more akin to translation and recombination than it is to creating Aphrodite from the foam of the sea.").

215. *See, e.g.*, Molly S. Van Houweling, *Distributive Values in Copyright Law*, 83 TEX. L. REV. 1535, 1575 (2005) ("Where the second-generation creator just needs to reuse an abstract idea, or a generally-catchy tune, she can probably find what she needs in the public domain . . . .").

access to cultural heritage,[216] education,[217] self-expression and autonomy,[218] various governmental functions,[219] or deliberative democracy.[220] This recognition, in turn, may foster interdisciplinary work to extend understanding of public domains and the values they serve.

Public domain scholarship has also offered an array of inspiring ideas about how and why to preserve and protect public domains.[221] Some scholars direct attention to legislative proposals (e.g., advising legislators not to enact new legal norms that encroach on the public domain, such as EU-style database legislation).[222] Some offer legal arguments for preserving public domain information resources in anticipation of litigation in which the public domain status of those resources might be tested (e.g., by setting forth a constitutional

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216. *See, e.g.*, quotation cited *supra* note 213.

217. *See, e.g.*, BOLLIER, *supra* note 79, at 2 (noting that the public domain "enable[s] all sorts of endeavors," including education); *cf.* Ochoa, *supra* note 1, at 215 ("Students and scholars debate historical events, ranging from the origins of man to the impeachment of President Clinton.").

218. *See, e.g.*, Cohen, *supra* note 1 (manuscript at 3) (discussing the argument of some scholars that "the extension of copyright protection to a variety of materials . . . amount[s] to improper appropriation of the public domain building blocks of knowledge and creative expression").

219. *See, e.g.*, Patterson & Joyce, *supra* note 16, at 756 ("Indeed, history demonstrates that even individuals who own copyrights on governmental works can perform a censorship function for the government . . . .").

220. *See, e.g.*, *supra* note 125 and accompanying text; Lee, *supra* note 19, at 97 ("[T]he concept of the public domain helps to establish a legal restraint against government overreaching by ensuring the public's access to materials that are essential for self-governance and a learned citizenry."); Zimmerman, *supra* note 31, at 332 ("To be sure, some progenitors of the First Amendment may have understood the necessity for a public domain to effectuate their vision of protection for public discourse . . . .").

221. Although the literature mainly offers positive perspectives about public domains, a number of public domain scholars have pointed out that Western-style public domain concepts have sometimes had baleful consequences for indigenous people whose folklore, sacred art, and shamanic knowledge have been appropriated without compensation. *See supra* note 21. And if one takes seriously the time, money and energy that may be required to provide sustainable access to public domain information resources, one can come to appreciate that IP incentives may be needed to justify investments in sustainable access. *See, e.g.*, Landes & Posner, *supra* note 74, at 488–95 (arguing for IP protection in otherwise public domain works to encourage investment in their preservation and distribution). *But see generally* Mark A. Lemley, *Ex Ante vs. Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129 (2004) (questioning Landes and Posner's analysis and conclusions).

222. *See, e.g.*, Reichman & Uhlir, *supra* note 92, at 336 (noting that one of the legal rules still supporting the fragile data-sharing ethos in science is the fact that the U.S. has not made data sets protectable IP assets, as has the E.U.); Samuelson, *supra* note 6, at 159 (warning that an EU style database law would "pose [a] substantial threat[] to the digital public domain").

grounding for information resources that some firms may want to privatize).[223] Some suggest that the public has an affirmative right to the contents of the public domain.[224] Some offer suggestions for proactive measures to promote public domain values by private individuals, communities, or institutions (e.g., Creative Commons licenses or the contractually reconstructed commons for scientific data).[225] Some suggest making it easier to dedicate information resources to the public domain (e.g., by standardizing disclaimers or waivers of IPRs).[226] Some offer support for governmental agency actions or policies that promote public domain access to data or knowledge (e.g., National Institutes of Health guidelines for data sharing).[227]

Professor Robert Merges points out that many private actors are investing in the creation of public domain information resources as essential inputs to the creation and dissemination of complementary products or services from which they will be able to recoup research and development investments.[228] Open source software, CC-licensed music, and open-access databases are examples of "a private-ordering response to the phenomenon of the 'anticommons'"[229]—that is, to a phenomenon in which a proliferation of property rights inhibits investment in innovation because there are too many rights to be cleared.[230] Merges provocatively suggests that the public domain has become more valuable and dynamic in reaction to the strengthening of intellectual property rights.[231]

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223. *See, e.g.*, Zimmerman, *supra* note 31, at 371 (positing a constitutionally grounded public domain from which information cannot be removed once it has entered).

224. *See, e.g.*, Lee, *supra* note 19, at 209 ("Whatever lies in the public's domain belongs, by definition, to the people and is, therefore, off-limits to government control.").

225. *See, e.g.*, Reichman & Uhlir, *supra* note 92, at 371–95 (arguing for a contractually created commons).

226. Merges, *supra* note 75, at 185, 201.

227. *See, e.g.*, Rai & Eisenberg, *supra* note 138, at 308–09 (noting that the National Institutes of Health (NIH) has successfully used its power of persuasion to keep scientific norms of data sharing alive, but expressing fear that the NIH will soon need additional legal authority).

228. Merges, *supra* note 75, at 183–84.

229. *Id*. at 186; *see also id.* at 186–98 (reviewing several examples of these "Property-Preempting Investments"). Merges speaks of CC licenses as partial dedications to the public domain. *Id.* at 199.

230. *See, e.g.*, Michael A. Heller & Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, 280 SCIENCE 698, 698 (1998) ("[A] resource is prone to underuse in a 'tragedy of the anticommons' where multiple owners each have a right to exclude others from a scarce resource and no one has an effective privilege of use.").

231. Merges, *supra* note 75, at 184–86.

Professors Dinwoodie and Dreyfuss make a significant contribution to public domain scholarship by emphasizing the importance of accessibility of information resources as a means of promoting the ongoing progress of science and useful arts.[232] Innovators who have a choice between trade secrecy and patent protection for, say, a chemical discovery will thereby be making a choice between inaccessible and accessible information. Subsequent researchers may rediscover the same compound or process, and competitors may eventually reverse engineer the secret, but the issuance of a patent will disclose what that innovation is, how to make it, how it differs from the prior art, what its known or likely utility is, and in the U.S., the best mode of making it. This knowledge will thereby become publicly accessible sooner and with less reduplication of effort than the trade secret option would produce. Upon publication, the information that the patent provides will be in the public domain, although certain uses of it will be proscribed during the effective life of the patent. Upon expiration, the right to practice the claimed invention will be an IP-free public domain as well.[233]

The absence-of-IPR definition of public domain tends to ignore that some public domain works may become more publicly accessible through proprietary access control and licensing restrictions than if they were in a completely IP-free zone. Lexis and Westlaw, for example, provide access to state and federal statutes, regulations, and judicial opinions, all of which are officially IP-free as a matter of U.S. law.[234] Such legal information is widely available in law libraries and on judicial and other nonprofit websites. It is possible, although time consuming, for members of the public to access this IP-free information without the aid of these proprietary services. As a

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232. *See supra* notes 136–40 and accompanying text.

233. Public accessibility also matters on the copyright side. Works may theoretically be in the public domain because the copyright term has expired. However, unless extant copies of these works are publicly accessible, the public domain status of the works is of no practical significance. The Paul Klee painting that remains in a wealthy person's study, the movies that remain in MGM's vault, and the diary of a famous author stored in her son's attic are as lost to the effective public domain as works that were destroyed by fires, natural disasters or wars. *See* Reese, *supra* note 141, at 24–25 ("While copyright might permit anyone to make and distribute copies of an old unpublished work, no one can engage in those activities without having access to the work . . . .").

234. *See, e.g.*, Veeck v. S. Bldg. Code Cong. Int'l, Inc., 293 F.3d 791, 800 (5th Cir. 2002) (holding that copyright protection is unavailable for laws); *see also* Patterson & Joyce, *supra* note 16, at 751–58 (explaining why laws and judicial opinions should not be copyright-protected).

practical matter, however, Lexis and Westlaw make public domain legal information more widely available to the community that relies on them the most, that is, lawyers, law professors, judges, and their support staffs. These services are widely used because they add value to raw public domain information (e.g., by providing search technologies and remote electronic access so that research can be done in one's office or at home without trekking to a library). Access controls and commercial licensing are strategies for recouping the expenses of providing these added values. The IP-free status of legal information is, interestingly enough, an enabler of value-added products and services.

Equally important as public access to information resources is the sustainability of that access. Scholars who emphasize the IP-free definition of public domain may assume that the IP-free status of information resources will ensure continued public accessibility, but this is not necessarily so. Charlotte Hess and Professor Elinor Ostrom, along with Professor Reichman and Dr. Uhlir, focus attention on the sustainability of the information commons.[235] Sometimes, these authors point out, it is necessary to develop a complex regulatory structure in order to provide appropriate and sustainable access to a common pool resource, such as scientific data.[236] This may involve access controls and licensing restrictions that may seem similar in some respects to those of proprietary services such as Lexis and Westlaw. A contractually constructed research commons can, however, be tailored to serve research communities by providing open access to research data and rights to use the data for research purposes, while at the same time requiring those who draw upon the resource to contribute to it. A research commons can prevent proprietary free riding on the common resource.[237]

235. Hess & Ostrom, *supra* note 11, at 112 ("Information that used to be 'free' is now increasingly being privatized, monitored, encrypted, and restricted."); Reichman & Uhlir, *supra* note 92, at 461 ("Our investigation reveals that the policy of open access to public research data rests on a surprisingly fragile foundation in both the legal and normative sense.").

236. *See, e.g.*, Reichman & Uhlir, *supra* note 90, at 462 (suggesting that the scientific community must "ward off the threat of undue enclosure" by "develop[ing] a regulatory framework to preserve the functions of a research commons"). Professor Benkler is optimistic that an IP-free commons will be sustainable. *See, e.g.*, Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access*, 52 FED. COMM. L.J. 561, 579 (2000) (noting that the gloomy predictions of IP pundits are not preordained).

237. Reichman & Uhlir, *supra* note 92, at 419–60.

Sustainable access may necessitate more of an institutional infrastructure than an IP-free public domain alone may permit.

The main risk in accepting multiple public domains is that people will sometimes be confused about what the term means in particular contexts.[238] A person who believes that open source software is public domain software might decide to make a proprietary derivative of the software and then be surprised and dismayed when a lawyer for the open source software developer threatens to sue for copyright infringement and breach of the open source license. A person who believes that certain fair use activities (e.g., place-shifting music) are public domain might want to start a business selling place-shifting services to the public, only to encounter the threat of a lawsuit by the recording industry. Even in the absence of threatened or actual litigation, confusion about the meaning of public domain in particular contexts is likely, especially if there are thirteen or more definitions to keep track of.

No one, of course, is going to be misled into believing that the register of copyrights is advocating the abolition of copyright law when she speaks of copyright as entering the public domain.[239] In context, it is possible to discern that she means that members of the public are actually talking about copyright these days (and not with the reverence that copyright lawyers and industry executives would prefer). More generally, discerning the meaning of public domain from contextual signals such as speaker, type of information resource, and type of community affected will often be dreary and unilluminating work. If people mean different things by the same term, they find it difficult to communicate effectively.

One way to dispel some confusion about the meaning of public domain in different contexts is to use adjectives to distinguish among them. This Lecture has done this, for example, by describing public domain information artifacts or resources as *IP-free* to distinguish them from public domains that encompass IP-protected information resources. This Lecture has also used *constitutional* or *mandatory public domain* to denote information resources that cannot, as a matter of constitutional law, be privatized. It has identified a privatizable public domain to denote information resources that are IP-free for now, but may become IP-encumbered in the future.

238. *See supra* note 11 and accompanying text.

239. *See supra* note 22.

Professors Chander and Sunder similarly use the adjective "romantic" to signal their differentiated meaning for public domain.

In future work, I expect to continue to recognize these five public domains (PD 1, 2, 3, 4, and 13) and to distinguish among them with adjectives. I do not expect to use the term *unpublished public domain* (unless marked off with quotation marks to indicate Professor Reese's usage) because for me a domain must be public in the sense of being publicly accessible to be a public domain. Reese's domain might more appropriately be called an unpublic domain or a domain of unpublished works free from copyright restrictions.

When addressed to a general audience, Professor Benkler's use of *public domain* to signify a domain of free uses of information resources seems sensible. However, in legal discourse, this use of public domain obscures more than it illuminates various legal status concepts that I believe legal scholars should try to keep distinct. For similar reasons, I will not in future work characterize open source or CC-licensed content as public domain because I regard *contractually constructed commons* as a more appropriate moniker for this class of information resources. Open source and CC-licensed content may, of course, serve some of the same values as IP-free public domain resources, but they are significantly encumbered by underlying IP rights and license terms. As Professor Niva Elkin-Koren has observed, Creative Commons licenses impose significant costs on users of informational works.[240] She worries about the unintended consequences for IP-free public domains that will flow from CC's "licensing platform[, which] relies heavily on a proprietary system and on viral contracts."[241] By adopting this licensing platform, Creative Commons strengthens arguments made by proprietary vendors that the latters' viral license terms restricting fair and other socially valuable uses should be enforced. An IP-free public domain, in contrast, lowers transactions costs and allows follow-on creators to use preexisting works far more broadly than CC licenses do.

The public domains that Professors Lange, Cohen, and Birnhack have articulated are among the most imaginative and inspiring public domains in the literature.[242] From their work, readers should take away a more dynamic and vibrant sense of the role of public domains

240. Elkin-Koren, *supra* note 193, at 3.

241. *Id.*

242. *See supra* notes 103–29 and accompanying text.

in creative work and public discourse. Their conceptions of the public domain give more life and robustness to the public domain of IP-free information resources (PD 2). All three aim to expand the bounds of this domain so that appropriations from preexisting works will more often be deemed legitimate reuse of ideas, rather than an improper appropriation of expression, from protected works. Professor Lee's public domain also aims to enrich this same public domain of IP-free information resources, albeit in a different way; namely, by appreciating the significance of disclosure of secret government information and providing arguments for affirmative rights of the public in this domain.[243]

CONCLUSION

Professor Boyle was the first scholar to recognize and celebrate the existence of multiple public domains.[244] In the past five years, even more public domains have emerged. This Lecture has identified thirteen public domains, offered reasons why public domains have proliferated, and suggested some commonalities among them as a means of facilitating discourse about them.

Accepting the existence of multiple public domains allows context-sensitive meanings of "public domain" to evolve. It also contributes to a richer understanding of the contents of public domains, social values these information resources serve, persons and communities who care about public domains, the legal and institutional structures available to preserve them, threats that some public domains face, and strategies for responding to these threats.

Professor Boyle may be right that scholars initially invented multiple public domains because of "the implicit fear or concern about intellectual property that each attempts to alleviate and the implicit ideal of the information ecology that each attempts to instantiate."[245] Public domain discourse has, however, taken on a life of its own, as public domain memes have spread widely via the Internet. As awareness has spread, public domains have become more dynamic, vibrant, and even fun than they were twenty years ago. Public domains will have an even richer and more robust future if members of the public continue to engage in creative uses of

243. *See supra* notes 130–35 and accompanying text.

244. Boyle, *supra* note 3, at 58–62.

245. Boyle, *supra* note 2, at 29.

information technologies via the Internet, implicitly following Professor Lange's sage advice to be "at play in the fields of the word."[246]

246. David Lange, *At Play in the Fields of the Word: Copyright and the Construction of Authorship in the Post-Literate Millennium*, 55 LAW & CONTEMP. PROBS. 139, 139 (Spring 1992).